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**RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)**  
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**Editor's Note**

Recently, Thailand celebrates the crowning of its King Rama X. After coronation ceremonies that held in such complete traditions and customs, HM King Maha Vajiralongkorn pledges 'to reign with righteousness for the benefit of the people'. The Thais would not want to miss this historic occasion as enormous crowds wearing yellow shirts outside the Grand Palace to show respect and loyalty to the King. People of Thais last witnessed this centuries-old royal tradition on 5<sup>th</sup> May of 1950, during the coronation of the late King Bhumibol Adulyadej.

In conjunction with the coronation of the latest King Maha Vajiralongkorn Bodindradebayavarangkun, making the latter the 10th King of the Chakri Dynasty, this journal seeks to invite the audience to delve in several topics out there that related to everyone daily dealing. This journal is already passed its maturity phase where we already endure five (5) years of tussles in this writing industry and we also would like to uphold the King speech, for us to become the source of benefit to people out there. Therefore, one of the topics in this journal is about education as it may bring benefit to those who possessed it. As per the Latin saying, *Sapientia est potentia* which means knowledge is power.

Let us go through all the six (6) articles that will provide fruitful discussion and information to the readers out there. The first paper tells us about the quest for Chinese International Relations (IR) Theory. Preechaya Kittipaisalsilpa will bring us such puzzling fact that so far, there is still no Chinese IR theory emerging from Chinese IR community. The paper also try to define and explore how knowledge has been conceived in mainstream IR theory.

The second paper will equip us with such critical knowledge from abroad. Adiasri Putri perceived that our neighbour in Indonesia is having the problem of economic nationalism discourse. This is based on the technology-driven structural change and national Science Technology and Innovation (STI) policy in the country. The move made by the government in STI can provide a big push fo national technological change, even though that a policy might be a political tools made by policymakers to driven for change. More interesting details are awaiting for the audiences to read.

Flying to the African continent, corruption is like a disease, yet it is contagious. Thus, eliminating it is a must to sustain the wealth of a country. Hence, that is why Habeeb Abdulrauf comes up with a study to explore corruption among the executive police officers in the Nigeria Police Force (NPF) and the effects on the welfare of operational police officers and police activities in Ilorin Emirate of Kwara state, Nigeria. The result of the study is stimulating a rather huge blow to the society, since it contribute to the poor welfare of the rank officers and the insufficient police-related facilities in the Kwara state.

The fourth paper by Jamie Wallin proves to be instrumental for English language learners. The article describes approaches that teachers may find useful in teaching adolescent second language learners. It is widely discussed that youth is a special group due to development challenges such as physical, emotional and behavioural changes. Several academic publications were reviewed by the author, such as specialised journals and publishers of educational learning materials. This paper later concludes that by observing that adolescents whose first language is not English, and who complete their secondary school education without attaining at least minimum skills in English, will be seriously disadvantaged, not only in their personal lives, but in future career opportunities.

It is important to know about students response to the way how they are taught by teacher. Thus, Arlan Parreño focus on this matter, though that there is a doubt about the reliability and fairness of this evaluation method. In this paper, many factors are deemed to influence student ratings towards their teachers performance, as grading is usually an objective evaluation that may impact the teachers promotions or salary increment. As a consequence, teachers may change their teaching methods so that they could obtain such favorable rating to boost their career paths and getting better pay.

Last but not least, Loeurt To presents us the study of exploring how primary schools in the remote area in Cambodia mobilized communities for school development, and the leadership roles of school administrators and School Support Committee leaders in mobilizing community participation. The study implements qualitative research method and later implies that further research on community participation in children learning and power dynamic of school administrators and school support committee leaders in community mobilization.

The papers need to be read with full focus and concentration yet it demands a good understanding by the audiences out there as they are produced with extra care and due diligence by the authors. Therefore, no page shall be skipped or being ignored by the reader out there. By being meticulous and giving ample level of concentration, then only we could gather a lot of information and knowledge, with this kind of in-depth reading.

In a nutshell, that is why journals such as RJSH exists: to create a bridge for knowledge-seekers (learners) with producers of knowledge (researchers). As the editorial team, we perceive this as our job: sharing new knowledge, including alternative ways of understanding the complex issues that happen in our daily life as well as on our societies in general.

We welcome your comments and, of course, your manuscripts. Links to our manuscript submission site can be found at RJSH Online Submission and Review System: <https://rjsh.rsu.ac.th>. We look forward to hearing from you.

Sincerely,



Anek Laothamatas  
Editor-in-chief

**RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)**  
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## The Quest of Finding Chinese International Relations Theory

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### Abstract

Paper presents International Relations theory (IR) development in China as the quest of examining whether why, so far, there is no Chinese IR theory emerging from Chinese IR community. The central argument of this paper is to break down the conception of knowledge in IR theory. The main objective is to define and explore a puzzle of how knowledge has been conceived in mainstream IR theory. The paper draws international relations (IR) theory development in China as the quest of examining whether why, so far, there is no Chinese IR theory emerging from Chinese IR community. In conclusion, paper argues that the question is best answered by the positivism marks on the IR knowledge generation. The paper lays a conclusion of the main question by taking account of Acharya and Buzan (2010) in terms of the analysis of knowledge claims in mainstream IR.

**Keywords:** *Mainstream International Relations theory, Chinese IR theory, Knowledge, Chinese IR community.*

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### 1. Introduction

To make sense of international politics, one often turns to ‘International Relations theory’. Throughout the history of theorising IR theory, there has been an ongoing debate over how the generation of the body of knowledge in IR theory is conceived and studied by distinguishing between Western and Non-western approaches. Many scholars claim that IR theory has been continually dominated by a singular American-dominated worldview (Booth & Smith, 1995; Wæver, 1998). Hoffmann (1977) defines mainstream IR theory as being an American social science and national IR communities are clustered into regional groups with distinct characteristics, such as the Anglo-American way of doing IR theory. Chen (2011) and Falk (2004) both argue that IR theory has not only been largely based on Western-American methods of theorising but is recognised as an ‘American social science’ dominated by American scholars and methodologies based on an American world-view. Consequently, Gill (1993); Smith (2002) question the dominant system in IR theory in which there might be a hegemonic position in theorising IR theory. Boulding (1990) argues that to make the study of IR complete, one must erase those legacy perspectives that inherited from western political thought. Tickner and Wæver (2009) straighten the argument by affirming that mainstream IR theory always contains Western elements. It always promotes the rise of Western schools of thought by acknowledging the voices and influences of western scholars while non-western remain marginal voices. Therefore, with such a dominant voice in IR, the discipline might provide no room for non-western IR theory to develop.

The central argument of this paper is to break down the conception of knowledge in IR theory. The main objective is to define and explore a puzzle of how knowledge has been conceived in mainstream IR theory. The paper presents international relations (IR) theory development in China as the quest of examining whether why, so far, there is no Chinese IR theory emerging from Chinese IR community.

### 2. Methodology

The paper uses a qualitative method in a replication of the study. It firstly analyses the framework how mainstream IR theory conceives valid knowledge. Following, it examines the Chinese IR community by giving a particular attention to the development of IR study and theorizing in China. This case has been selected because of the recent increase in the research and study accomplishments of Chinese IR communities in an attempt to generate greater potential in developing and theorising its own IR theory. The paper answers by reflecting on mentioned arguments, identifying structural limitations and artificial drawbacks, and suggesting directions for future research in this area.

### 3. Results

#### 3.1 The History of Mainstream IR Theory

The academic study of mainstream IR originally emerged immediately prior to the First World War (Brown & Ainley, 2009). During 1914-1918, Schmidt (1998) demonstrated that the early foundations of the study of IR began as a sub-field of political science worked in by American political scientists in the US. Initially the primary concern was to establish the scope and domain of political science; little space was thereby opened up for analysis of international relations. In the US, according to the role of the American IR scholars and how the US responded to the First World War, the discipline of IR increasingly had more attention paid to it and its status was elevated from that of a sub-field of political science. Later the American scholars began to desire the establishment of the long-standing independent theoretical discipline and school of IR. Through the late 1940s, the systematic philosophy of science method was increasingly borrowed in the efforts of European and American scholars to explain international politics realistically (Becker, 1972; Wright, 1955). According to Hollis (1991), two basic intellectual approaches in the US have shaped the development of the social sciences, including the study of American IR theory and the development of American IR theory. Two early foundation textbooks in the field, written by Carr (1939) and Morgenthau (1946), developed a framework of analysis which quickly became the general major's core study in the IR field. It should be noted here that classical realism which was regarded as the most prominent school in the IR field emerged from the American IR School.

After the Second World War, the IR school became more popular in the field study of the international social system (Brown & Ainley, 2009). Subsequently, the scientific approach was borrowed to develop a new theory based upon natural science. Correspondingly, the effort to classify theory in the scientific turn provoked three major disciplinary debates. Those debates then shaped and underpinned the scientific principles in theorising mainstream IR theory and American IR theory (Booth, 2004). After the Second World War and onset of the Cold War, the position of Anglo-American studies of IR representing a long-standing sub-field in political science itself emerged as a mainstream IR school. The development of the subject has come into its own.

To respond to the question of why the 'American school of IR' has the characteristic essence and claim to be referred to as 'the mainstream IR school', firstly, the idea of developing IR theory clearly emerged from the efforts of US scholars in trying to understand the international system and analyse the conception of theory in the study of IR. Secondly, the main schools of thought in IR theory, which later become the grand theories in the study of IR, emerged from the American body of IR knowledge. According to Wright (1964), as in all fields, mainstream IR also has a widespread range of theories which can be separated into two groups; grand theory and middle-range theory. Examples of the grand theories in mainstream IR include the classical realist theory of Morgenthau and the Neorealist theory of Waltz which is taken to be the 'core of IR study'. Thirdly, throughout the history of the establishment of IR Theory there has long been an effort to scope out and logically categorize IR theory with the help of philosophy of science (Der Derian, 1989). A positivist or scientific approach is undeniably leading the way in theorising, a point demonstrated by the popular rational choice approach to studying IR theory. As Walker (1989) argues, the discipline of American IR has been formed in the area of post-war social science and the epistemology of research methods. Therefore, the body of knowledge in American IR or mainstream IR clearly involves the unique characteristic that is shaped by both the unique experience of historical, ontological claims of knowledge processing and epistemological knowledge contributions from scientific methods.

#### 3.2 Development of Chinese IR Institution

The development of Chinese IR institutions can be traced back and categorised into three main dimensions; the early stage of 1953-1964, the second stage of 1964-1979 and the modern stage of 1979 to the present.

The first stage began following the reformation of the People's Republic of China (PRC) in 1949. The PRC formally established the first IR research programme at the Renmin University of China. The central mission of establishing the programme was to train Chinese scholars to carry out research in the field of IR (Wright, 1957). The second stage characteristic features were interpreting the actions of leaders such as Mao

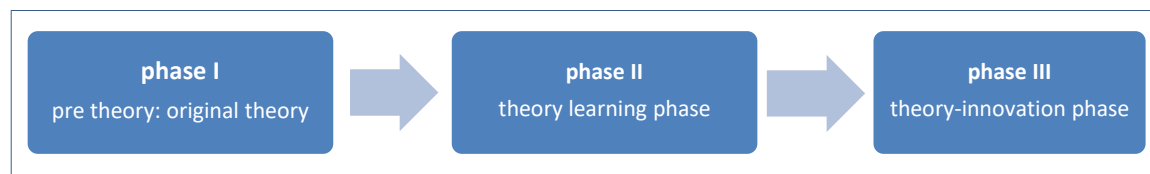
and Lenin and utilising mainstream IR thinking as a means of understanding the state's enemies. According to Gong (1989), the early task of studying IR during this period was to 'study from the enemy in order to conquer them'. The third stage in the development of IR theory in China emerged after Deng Xiaoping's reformation. As a result of the Opium War in 1840, the early development of the third stage had the purpose of answering the question 'should China open up to the rest of the world?'. In the effort to find the answer, Chinese scholars began to develop IR discourse.

Two transformations have been made in the field of IR education and research. Firstly, there has been an effort in translating the work of Western thinkers into Chinese languages in order to facilitate a better understanding of IR theory (Qin, 2007). The first Chinese translation was the book '*Politics Among Nations*' written by Hans Morgenthau, which respectively received great attention from the Chinese IR community. However, Morgenthau's work was translated into Chinese forty-two years after the first edition was published in 1948 (Qin, 2009a). Furthermore, the Chinese editions of Waltz's works in mainstream IR were translated approximately twenty years following their original publication in English. Those textbooks are very influential and as a result of the high interest in early IR development in the Chinese IR community, these works have been pushed to the pinnacle of scholarly reputation in China's IR studies (Yan & Xu, 2009).

The second transformation occurred in the mid to late 1990s. Due to the influence of mainstream IR translation and research it served as a stimulus for the Chinese IR community to establish a more independent academic discipline and research culture. According to Qin (2010), in the early translation of publications, most of the translated works were heavily based on classical realist mainstream IR assumptions, which resulted in the domination of realism in early Chinese IR discourse. After the end of the Cold War, the awareness of wider varieties of theories in IR such as liberalism and constructivism has been increasing and have been consistently introduced through translation (Qin 2010). Furthermore, there have been an increasing number of younger Chinese IR scholars who have become more mainstream-oriented thinkers. As a result, other mainstream IR theories have been transmitted to China and progressively established their roots in the Chinese IR community. As a final point, the history of the development of the Chinese IR School has just emerged to become a part of mainstream IR discussion over the past centuries. The discussion involves the development of theorising IR theory and research contributions in China. It is claimed that Chinese IR theory has been reassembled and is intimately linked with how mainstream IR developed and how the mainstream IR community practices their theory.

### 3.3 Theorising Practice in the Chinese Context

As was stated, the paper has presented ways in which mainstream IR theorising IR theory with the help of philosophy of science. Even though there are many divergent features within the discipline, there is broad agreement over the purpose of generalizing theory as a set of observations and theory testing. In this sense, their general 'agreement' about 'theorising theory' is of the same essence. Similarly to the process of theorising development of the Chinese IR community, according to Figure 1, it can be distinguished into three phases: the pre-theory phase, the theory learning phase and the theory-innovation phase (Qin, 2010; Suzuki, 2009; Zhang, 2003).



**Figure 1** The narrative of theory phase

The first phase is described as the period in which there is no awareness about the theory. The research in this phase emerges from a set of collective observations which are made mainly on the basis of individual understanding and intellectual wisdom. As a result of the observation, the foundation of an original theory is created. The second phase is introduced when the academic institution in the field first possesses an emergent collective awareness and begins to build an agenda of critical analysis from the original theory. For

instance, in the mainstream IR sphere, there are major debates among scholars and such debates contain criticism, different scholarly opinions and analysis of existing theory.

The final stage includes many tests and applications of original theory. Here is when the new theory is developed out of the other original existing theories. As was noted in the second chapter, Popper describes the evaluation of the new theory in the following terms. If the core component of the original theory cannot be applied to explain social reality, there are two ways in which the new theory can emerge; verification or falsification of the original theory.

Firstly, scholars would turn to other related fields, combine the two core features together and establish the new assumptions of a new theory. Secondly, if they find sufficient evidence that the existing theory cannot any longer explain the situation, they can disaffirm the original theory by falsifying it and establishing a new set of theories. For example, Waltz borrows ideas from the field of micro-economics to establish his market-like international system. Wendt established his constructivist thought by borrowing heavily from sociological analysis while realists falsified the utopian state idea of utopianism (Carr, 2001; Waltz, 2001; Wendt, 1992).

Therefore, the narrative between the development of the Chinese IR community and the history of the practice of theory can be narrated as follows; the pre-theory phase started after China unlocked itself to the outside world and lasted from 1979 up to 1990. This was then followed by the second phase which began in 1990. Currently, Chinese IR is still in the deepening stage and is yet to arrive at the third stage which will be discussed later.

#### ***Phrase I: Pre-Theory Phase***

The development of pre-theory practice (phrase I) begins after the first establishment of an IR-related programme and extends until the end of the second stage of the development of IR in China. The reason that these two stages are recognized as the pre-theory phase is because during 1953-1979 there were few theoretical concerns among Chinese IR scholars and also there was no sense of developing their own school of thought (Peng, 2014). Wang (2009) states that during that time, there was no specific institution for international studies, there was no comprehensive arrangement, and the research quality was comparatively poor.

The term theory in that time served as the guideline, rules and the principles which were conceived and carried out only by top political leaders while others could only follow. The scholar's job was only to provide the foreign policy to the government (Zi, 1998). Since the early definition of theory was understood mostly as the strategy set forth by political leaders in the government, most of the research that was carried out did so in terms of demonstrating the interpretation of policy and the descriptive analysis of current international events.

#### ***Phrase II: Theory Learning and Analysis Phase***

In the second phase theory learning begins and extends up to the third stage of the development of China IR institutions from 1991. There are four important features within this development phase which will now be discussed.

Firstly, the second phase contains the debate among Chinese scholars between realist and liberal schools of thought. The core of the debate is the underlying question of China's position in the international political system (Noesselt, 2014). In this phase, Chinese scholars began to use IR theoretical paradigms as a standard for evaluating and researching international affairs. This development marks the point at which Chinese scholars moved forward from the pre-theory learning (phase I) to theory learning and analysis (phase II).

Secondly, as is discussed above, during this period, the Chinese IR community began to publish translated books along with the introduction of a wider variety of theories. The Chinese IR community began to acknowledge that theory is not merely a guideline for foreign policy interpretation but also a set of knowledge and offers a different standpoint from which IR scholars observe the political realm. This led to the great effort to transcend the domination of knowledge-oriented in Chinese IR community (Zhang, 2003). Subsequently Chinese IR academic scholars started to pay more attention to the discipline of IR theory in China. During 1996 to 2001, the great third improvement occurred in the Chinese IR community both in terms of quality and quantity. A recent survey demonstrates that ten IR journal publications have published

over three thousand articles written by Chinese scholars covering major IR areas, which is many times more than those published in the previous decades (Qin, 2007, p. 315–32).

Thirdly and most importantly, although three major contributions were made during the second stage, the research and Chinese IR community are hugely influenced by mainstream Eurocentric IR theory and the American scholarly tradition. According to Wang and Buzan (2014), it was during this stage that most of the core theories in mainstream IR were translated into Chinese languages and distributed in China. Chinese scholars began to apply Mainstream IR theory to Chinese issues, in particular the younger scholars; they tend to follow the standard of the mainstream-oriented discipline (Kristensen & Nielsen, 2013; Qin, 2010).

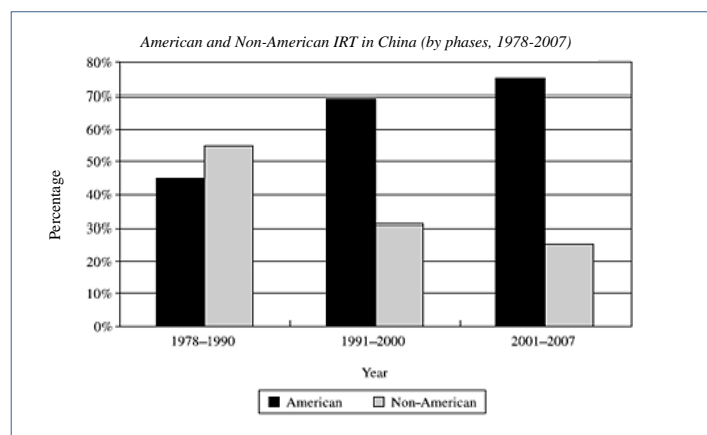
In the meanwhile, this continual tenacious effort in translating mainstream IR books into Chinese language boosted the influence of mainstream thought in the Chinese IR community. This tendency continues until the present day. As the result, this last contribution serves an important role in shaping the academic identity and characteristics of the discipline of IR in China.

### ***Phase III: Theory-Innovation Phase***

As for the third phrase, theory-innovation or theory building, many scholars including Chinese scholars state that Chinese IR is still in the second phase (Qin, 2009b, 2011; Schneider, 2014). They claim that during the past centuries there has been no single core theory that emerges from the Chinese IR School. Qin (2009a), in highlighting his searching quest for Chinese IR theory, demonstrates that IR theory research in China has successfully overcome the pre-theory phase and broadened to the second phase. Yet, it is not entering the last theory innovation phase.

Firstly, the achievement of IR theory research in China and the tenacious learning process has been accomplished mostly through the translation of mainstream IR classics and discourse. Acharya and Buzan (2010) reason that Chinese IR has consciously taken the definition of theory from the mainstream basis of IR theory as the original knowledge pattern. The early Chinese IR scholars rather than being critical, accepted mainstream IR knowledge production as the foundation of their knowledge (Callahan, 2014). As is claimed above, the development of Chinese IR since 1949 to the present emerged from interpreting and following mainstream Anglo-American thought.

Furthermore, the dominance of mainstream IR theory has been greatly and increasingly influential on Chinese IR while the Chinese philosophical tradition tends to decrease significantly as time goes by (Qin, 2011). Figure 2 (Qin, 2009a, p. 192) displays American (mainstream) and non-American (Chinese traditional philosophy), influences in Chinese IR academic institutions from the late 1970s to 2007. American influence in China was approximately only 43 percent during the first period; however, it rapidly rose to approximately 73 percent in 2007. On the other hand, non-American IR theory progressively dropped from 53 percent in 1978 to only 23 percent in 2007. From the table, it can be observed that there are an increasing number of Chinese researchers borrowing mainstream analytical frameworks and methodologies in order to explain and analyse the international realm rather than using traditional Chinese philosophy (Noesselt, 2014).



**Figure 2** American and Non-American IR theories in China by phase 1978-2007

Thirdly, recent research by Chen (2011) and Wang (2013) has found that Chinese IR may now have its own discipline of IR which is built through the reinforcement of the analysis of mainstream IR theory and its reconceptualization. However, it still does not have the discipline of its own Chinese school. As Schneider (2014) puts it, Chinese IR needs to embark on its own discipline and not just draw from the mainstream body of knowledge. Last but not least, Qin's analysis of the statistics collected over thirty years reveals that only 5 percent of the total publications focus on Chinese perspectives written by Chinese scholars. Correspondingly, there are only 5 articles that were published during the pre-theory phase and in the second phase there were only 39 articles published annually. This survey indicates that Chinese scholars have no interest in establishing a well-defined Chinese IR theory (Qin 2009a, p.195).

As a consequence, Chinese IR theory development is still in the second phase of development with its gradually increasing level of knowledge in the second phase. According to the examples above, the Chinese IR School exhibits little effort to develop new theory. It rather offers the analysis and criticism of original theories. It is most likely at the stage in which the Chinese scholars learn to analyse and begin to produce the research that relates to introductory theory. In the next section, the chapter will explore the reasons why the final stage has yet to emerge in Chinese theorising of IR theory.

### **3.4 Quest of Finding Chinese IR theory**

Much recent research proclaims that the academic environment in the Chinese IR community might not be conducive to generating any IR body of knowledge for two reasons (Johnston, 1995; Zheng, 1999). Firstly, it lacks an awareness of 'international-ness'. Secondly, mainstream IR discourse has taken the dominant place in Chinese IR. These two reasons will now be deliberated upon.

#### ***Lacks of an awareness of 'international-ness'***

There are two important concepts in traditional Chinese philosophical thought; the Confucian worldview and the tributary system, which are the foundations that entail that China has no any essence similar to the concept of 'international' systems that is established in mainstream IR. The first claim comes from China's history and traditional world view and intellectual mind-set which has roots in Confucianism. In Confucianism, there is a concept of 'Tianxia' which means the space under the heaven (Liu, 1955). The concept is defined as the combination between god, nature and the way of heaven. The Tianxia concept contains three ideas of the Chinese world view. Firstly, it holds the concept of subjectivity; a solitary ego without any opposite alter ego (Johnston, 1995). Therefore, it is premised on the belief that China was the cultural centre of the world and all humankind (Zhang, 2014). Secondly, it holds the idea of 'great harmony' in the aim of constructing the harmony of the whole world. It is believed that there is a unity of nature and human kind where the conflict is avoidable by remaining the great harmony between states. The third is the idea of the relationship between the father and son in family hierarchy, which is the foundation upon which the Chinese mode of governing is established. In Confucian belief, the relationship between people is like a father taking care of his son. Therefore, those elements in Confucianism of the Chinese understanding of the world create a belief in utopianism in which everyone can have a complete and perfect world unity. Thus, it is believed that it would lead to world peace and world harmony (Callahan, 2008; Zhao, 2005).

The second is the tributary system that is based upon the 'Tianxia' concept that serves as a means of continuity of the practice of inequality in the social system. This system was practiced and governed by the Chinese emperor between 221BC and the early 1800s. The tributary system is modelled on the notion of the state, which builds on the Confucian perception of the family (Zhang & Buzan, 2012). Thus, the Chinese tributary system serves as the system which enlarges the relationship of the family on a large scale. This system has lasted without any rival or equal members for the past 2000 years which creates a perception among Chinese people that they are the strongest and the most civilized state among its regions (Zhang, 2007b). Since there is no such awareness of maintaining their sovereignty, China is likely to perceive that there is no need to change this state of social consciousness and organisation in relation to its international concerns.

#### ***The dominance of Mainstream IR discourse***

After the breakout of the Opium Wars in 1840s, launched by Great Britain, Chinese society gradually began to have a clear awareness of other states. The result of the War was that it forced the Chinese to change

from a self-governing isolated state to one that opened its door to other states (Gong, 1989). Throughout the following era, there were two uprisings that arose in China resulting in many changes in China's culture, economy and politics. The first was the democratic revolution led by Sun Yat-sen and the second was the Chinese Communist Party revolution. Both of the revolutions boosted the dominance of the mainstream discourse in the Chinese context. Since then a new chapter has begun in Chinese history which resulted in the end of the two traditional Chinese systems; tributary system and Confucian philosophy.

First is the end of the tributary system of inequality. A consequence of the Opium War was that it demonstrated to the Chinese that not only were their technologies backward but also their forms of governance and ways of learning were also ineffective. The end of these social systems marks the collapse of traditional Chinese intellectual history. The modernization desire had led to the reformation in the 1898 and 1911 revolutions respectively. The revolution and reformation movements are very much shaped by the mainstream Western idea which aimed to break the Chinese world view of unequal social relationships (Dillon, 2009). Its spearheaded can be traced back to the Qing Dynasty, followed by the Boxer uprising by foreign troops in 1899-1901 and the collapse of the two-thousand-year-old Chinese empire due to the failure to deal with the pressure of the West.

The second is the end of Chinese traditional Confucian philosophy that was caused by the rise of the influence of mainstream IR. China began to accept more Western culture, technology and philosophical thought through the Westernization movement (Chesneaux, 1979). The country began to question Confucianism. The philosophical thought that followed in China can be divided into two major oppositions; the Chinese-learning school and the Western learning school (Zheng, 1999). The Western-learning school holds that Confucianism beliefs are the fundamental problem of the downfall of ancient China. The confrontation of these two schools reflects the confrontation of the two cultures running in China (Gong, 1989). Meanwhile, after the war the Chinese came to raise the awareness of the international realm and the concepts of the international and sovereignty were acknowledged. Accordingly, the Chinese traditional Confucian philosophy and other old forms of Chinese ideology and culture surrendered to the Western capitalist invasion (Zheng, 2005; Zhang, 2007a). Following this, the establishment of the PRC in 1949 brought an end to the old form of the Chinese traditional system of thought. During the following years, the attitude of 'the study of Western learning' and the application of mainstream techniques for practical purposes in China become mandatory. It is clear that the latter, the process of learning from the Western-learning school, has become the dominant discourse not only in Chinese IR learning but also in the modern Chinese IR community. The situation continues to the present day.

In the progress of forming IR theory with the help of philosophy of science, many claim that to build one theory there must be a 'specific core problem' which is perceived through a particular event that other theories cannot be used to explain. Thus, the new theory is formed as a tool to explain that specific problem in a specific circumstance (Callahan, 2008; Song, 2001; Wendt, 1999). According to Lakatos (1978) once the core theory is formed, the new theory can emerge. Speaking of the core theory in IR theory, taking mainstream IR of Anglo-American scholars in the 1990s as the example, they see one problem in common; the pressing issue of how to retain hegemony in the post-Cold War international regime (Gill, 1993). Later, Neorealism took the theory of the 'balance of power' which was driven by classical realism as a theory to prevent war and developed it into a more sophisticated theory.

As has been discussed in the theorising practice, the development of the study of IR in China is still ongoing and continually changing. The reason why the Chinese IR community has not yet found its own core problem in theorising its own theory is that it lacks both of the academic resources and the core problem in theorising its own theory. Still, there has been effort expended in the search for a distinctive contemporary Chinese IR theory. Many Chinese scholars see the possibility of Chinese IR theory. Schneider (2014, p. 4-10) summarises more recent Chinese scholarly and influential works on traditional Chinese philosophical frameworks including Qing's political Confucianism, Zhao's Tiexia system and Qin's relational constructivism (Shih, 2007; Yan & Xu, 2009). Moreover, in terms of historical perspective, Chinese scholars such as Shih Chih-yu's image approach and Qin's 'procedural constructivism' offer a rethinking of how historical event and experience relationships work compared to mainstream state relations (Qin, 2009b, p. 36). However, the knowledge base of recent Chinese scholarly influential works is different from the structure of the mainstream IR body of knowledge. The methodological process in theorising in Chinese IR



and its searching quest for its own theory does not involve hypothesis testing and observation. Rather, it is the 'origin of knowledge' that is generated in the process of building its theory that is not neutral. Chinese IR accepts and reproduces its knowledge foundation based on non-scientific claims (Wang, 2009). As post-positivists state, knowledge cannot generate an 'objective reality' if that knowledge is produced and formed by a variety of ontological factors such as cultural beliefs and meanings. The intellectual body of knowledge that is used in generating a theory in Chinese IR consists of Chinese self-identity, character and traditional preconceptions about Chinese human nature and the social world (Song, 2001). Unlike Neorealism, which emerges itself out of the classical historical box, the effort in theorizing Chinese IR theory is still trapped in ontological claims about past knowledge. It thus cannot compete with the knowledge, purely produced through the scientific rational method which is more objectively produced and more reliable in making objective sense of the world.

Hitherto, the Chinese IR community has been searching for the right track to theorise its own theory. From the beginning of the paper, it has been narrated that the most likely problem that resulted in the Chinese IR community not having its own theory is firstly the relationship between China and international society and secondly, resulting from the first problem, is the lack of its own resources. Over two thousand years ago there was no concept of sovereignty, nationalism or internationalism in the Chinese worldview. It only in the past few centuries that China has unfastened its relationship with the international system. Since China has always been an outsider, it is thus very difficult for China to come outside of its own shell and immediately find its position in an international system of which it has never been a part. According to Yahuda (1997), Chinese views of the international always take a very complex interdependent form. The absence of relationships with the outside world results in difficulties for China taking the decision to be involved both in conflict and cooperation. Hesitance in entering and leaving international society has been the fundamental problem in the Chinese IR context. This is a first task that Chinese IR scholars have to find the solution to before pursuing its own theoretical framework.

Secondly, due to the lack of institutional resources and specific problems in theorising and practicing its own core IR theory, Chinese scholars by necessity must return to its original historical philosophy such as the Confucian worldview in terms of its perspective as a harmonizing political framework. In addition, building up the theory from the Chinese worldview perspective is clearly challenging the mainstream IR discipline. Throughout this paper, it has been shown how the Chinese IR community has been producing their IR body of knowledge and how recent effort has gone into trying to create its own theory based on a Chinese perspective. Though, those Chinese intellectual IR resources are indeed rooted in characteristics of human consciousness and reflect Chinese cultural and historical presuppositions and perspectives of human reason (Zhang & Buzan, 2012). This comes back to the post-positivist question of, if the knowledge is produced through this academic environment, can it still be objective and valid? Although they are using the methods as a set of rational observations, the knowledge generated inside its body is certainly unsystematic and unreliable. The evidence of this claim could be seen in the rejection of the old Chinese traditional intellectual resources that are narrated and presented above.

After examining knowledge generation inside the Chinese IR community, the answer to the question 'why is there no Chinese IR theory?', is that knowledge generation inside the Chinese IR school is certainly different from mainstream IR. According to Wang (2013) although Chinese IR scholars are trying to overcome the heavy dependence on mainstream IR knowledge frameworks and influence, it is still difficult since most of the Chinese IR scholars clearly recognise mainstream IR as the original foundation of valid knowledge in IR practice. The proof that the knowledge generation in mainstream IR is objectively valid and can be used universally is that Chinese IR scholars have been depending on mainstream IR frameworks and its methodological practice since the emergence of the Chinese IR community until the present day.

#### 4. Conclusion

From the beginning, Chinese IR community has been searching for the right track to theorise its own theory, however, it has not found one. The paper lays a conclusion of the main question by taking account of Acharya and Buzan (2010) in terms of the analysis of knowledge claims in mainstream IR. Firstly, mainstream IR theory discovers the right paths for understanding IR. Throughout Chinese history, there was no concept of internationalism in the Chinese worldview. It was only in the past centuries that China has

unfastened its relationship with the international system. China has always been an outsider, thus it is very difficult to immediately find its position of which it has never been a part. According to Yahuda (1997), hesitation in entering and leaving international society has been the fundamental problem in the Chinese IR context. Secondly, mainstream IR has acquired hegemonic status in IR. Chinese IR community has been producing their IR body of knowledge and recent effort has gone into trying to create its own theory based on a Chinese perspective. However, those Chinese intellectual IR resources are indeed rooted in characteristics of human consciousness and reflect Chinese cultural and historical presuppositions (Zhang & Buzan, 2012). Nevertheless, the knowledge generated inside its body is certainly unsystematic and unreliable. The evidence of this claim could be seen in the rejection of its own Chinese traditional intellectual resources during its transitional period. Thirdly and fourthly, non-Western IR does exist but is hidden by language barriers and difficulties. Chinese IR community has had difficulty in translating mainstream IR theory records which are mostly written in English. As Chen (2011) argues, the Chinese IR community can never surpass all language barriers because the translation narrative 'will always remain incomplete' compared to the original. Conversely, if non-western IR theory does exist yet, is hidden from the mainstream IR theory by these barriers, other non-western IR theories might be hidden not just from the mainstream IR vice versa (Shani, 2008). Thus, in order to validate the possession of a body of knowledge in non-western IR theory, non-western scholars such Chinese scholars have to turn back to the mainstream IR body of knowledge as the 'original valid pattern' in theorising its own theory. The proof that the knowledge generation in mainstream IR is universally valid is, Chinese IR scholars have been depending on mainstream IR methodological practice since the emergence of the Chinese IR community until today. Lastly, mainstream IR begins to theorise before non-western IR communities. The mainstream-dominated direction in IR theory has been registered with an increasing frequency of existing power relations for centuries. In the process of theorising, the discipline establishes who plays the role of actor and who plays the role of audience. As far as the visions of finding Chinese IR theory is concerned, there is no doubt that the mainstream IR school has the advantage of being the first in the field which enabled them to develop their theory earlier (Shih, 2007). However, according to Dougherty and Pflatzgraff (2001), the genuine body of knowledge is made when body of knowledge can satisfy the scholar's need for explanation. The condition that the mainstream school began earlier did not cause a big gap for the Chinese to catch up in terms of research production. In the final analysis, it relies on the outcome of the body of knowledge production in mainstream IR being universally valid. The history of knowledge generation in mainstream IR theory is built from sources of 'essential empirical data' rooted and reproduced from epistemologically and logical methodology (Prozorov, 2011; Wang, 2009). If Chinese IR scholars can generate such kind of knowledge, the catching up game between Chinese IR scholars and the mainstream IR scholars will certainly come to an end.

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## Technology-Driven Structural Change and the National Science Technology and Innovation Policy in Indonesia: The Problem of Economic Nationalism Discourse

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### Abstract

As the manufacturing sector is a key driver in achieving higher economic growth at the middle-income stage, scholars have directed their attention toward manufacturing industry's upgrading through Science Technology and Innovation (STI) policy. Under the logic of developmental states, any effective STI policy relies on efficient triple-helix (government-university-industry) coordination. Although an STI policy can provide a big push for national technological change, policy is still a political choice made by policymakers. As such, a discursive institutionalism approach offers a way to examine policymakers' behaviour based on how they frame their policy. Through a qualitative document analysis, this paper argues that the current Indonesian administration uses an economic nationalism discourse to frame the Indonesian national development strategy. This discourse extends to the national STI policy, which prioritizes 'natural resource' protection over national technological upgrading to support indigenous manufacturing sector. As a consequence, this STI policy choice does not offer much support for medium-technology manufacturing subsector growth at a time when Indonesian technological capabilities have already been stuck in a low-technology rut for 23 years.

**Keywords:** *science technology innovation policy, national technological upgrading, structural change, Indonesia*

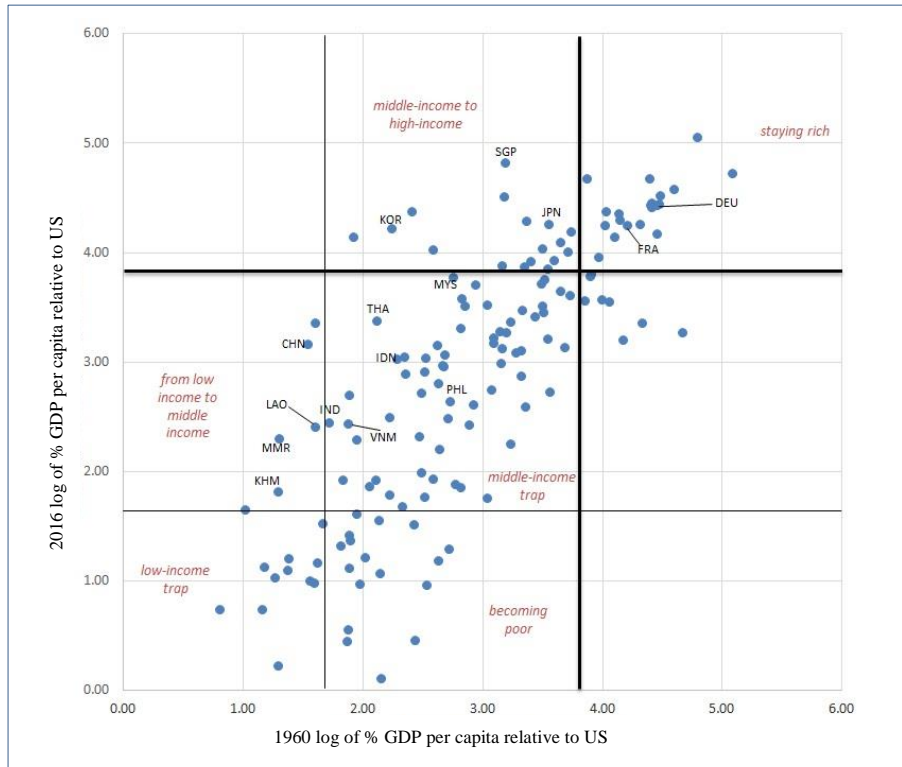
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### 1. Introduction

Economic growth has always been the central topic in the study of development. Often, a government's biggest challenges have been to escape low-income status and maintain high growth after reaching the middle-income stage. Currently, various developing countries continue to face the problem of middle-income trap (Figure 1). At a middle-income stage, a country can no longer rely on natural resources for their comparative advantage. One of the keys for higher economic growth is structural changes from agriculture to manufacturing and from manufacturing to the service sector, and the manufacturing sector becomes the key driver for higher and faster economic growth at the middle-income stage.

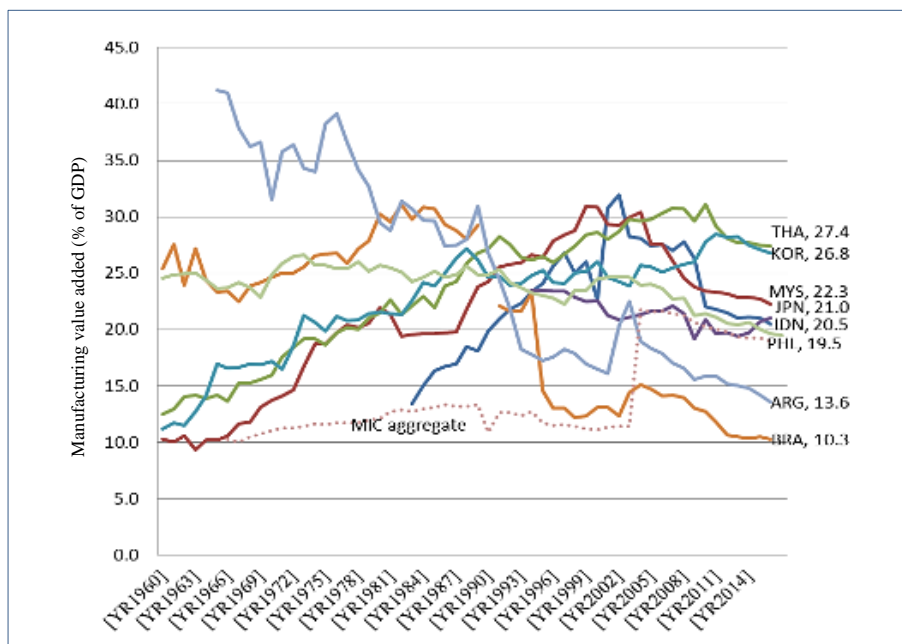
In light of this reality, the United Nations Industrial Development Organization [UNIDO] (2015) highlights the importance of examining the growth of manufacturing subsectors. The report presents that the transitions of developing countries into developed countries within the past 40 years were accompanied by technological upgrading<sup>i</sup> within the manufacturing subsectors. Thus, they propose a technology-driven structural change with a heavy emphasis on a national Science Technology and Innovation (STI) policy. Effective triple-helix (government-university-industry) coordination stands at the centre of providing a big push for a national technological change that supports the manufacturing sector.

Within the age of global production network expansion, Southeast Asia is one of the most dynamic regions hosting multinational companies (MNCs) in the medium-technology manufacturing sector since the 1980s. The Association of Southeast Asian Nations (ASEAN) frames the central idea of the ASEAN Economic Community (AEC) under this light (ASEAN 2008; 2015). In the middle of this global dynamic, most of the middle-income countries in Southeast Asia still find themselves trapped in the middle-income trap (Figure 1). Among them, Indonesia has the weakest manufacture value added growth (Figure 2).



**Figure 1** Middle-Income Trap based on Relative Income Calculation

**Source:** author's calculation based on Agenor, Canuto, and Jelenic (2012). Maddison Project Database version 2018 (Bolt, Inklaar, de Jong, and van Zanden, 2018)



**Figure 2** Share of Manufacture Value Added to GDP

**Source:** World Development Indicators (2018b)

This paper examines the case of STI policy in Indonesia under the technology-driven structural change concept, as one of the latest policy recommendations for middle-income countries. Effective institutions are fundamental to technology-driven structural change concept. Under the new institutionalism approach, this paper does not ask whether, but how an institution matters (March and Olsen, 2008). Instead of using quantitative such as government size or the number of financial regulations to examine the government as an institution (Aiyar, Duval, Puy Wu, & Zhang, 2013). Aiyar et al. (2013) choose a qualitative discursive institutionalism approach to explain how policymakers' behaviour influence policy by highlighting the existing discourse within a certain policy choice. In doing so, this paper hopes to complement various policy reports and indexes on STI development, which already provide a quantitative measurement on institutional capacity to innovate. These measurements include public R&D expenditure, population education level, Science, Technology, Engineering and Mathematics (STEM) data, and other comparative indicators (Cornell University, INSEAD, & WIPO, 2018; OECD, 2016b).

Overall, this paper argues that economic nationalism is one important factor that influence the direction of STI policy in Indonesia. The current President Joko Widodo administration continues the previous administration's emphasis on an agrarian and maritime identity within Indonesia's national development strategy. The STI policy in Indonesia prioritizes 'natural resource' protection over upgrading of manufacturing technology. As a result, low-technology sectors (e.g., agriculture, food) dominate the STI policy programs. Therefore, under the logic of technology-driven structural change, this STI policy choice does not offer much support for medium-technology manufacturing subsector growth at a time when Indonesian technological capabilities have already been stuck in a low-technology rut for 23 years.

## **2. Technology-Driven Structural Change and Science, Technology, and Innovation Policy**

Before going further into the concept of technology-driven structural change itself, this paper first provides a brief history of STI policy study. Lundvall and Borrás (2005) trace it back to a separate origin of science policy, technology policy, and innovation policy. This provides an understanding of why current STI policy can be analysed with different lenses which can also overlap with each other (e.g., natural resource conservation, public health, industrial catch-up). As a whole, however, STI policy gains its momentum when policymakers start to see STI development as an integral part to support national economic growth.

Historically, the origin of science policy stems from the government's interest on using science to improve resource efficiency so as to support welfare distribution. Ministries of education and research often act as main policy agents, alongside some degree of involvement from other ministries (e.g., ministry of health, defence, energy, transport) (Lundvall & Borrás, 2005, p. 7). As science-based technologies (e.g., nuclear power, space technology, computers) begin to play a more significant role to promote economic growth, governments start to pay more attention towards their technology policies. Countries in different developmental stages (high-income advance countries versus catching-up countries) conduct different technology policies. The focus of technology development shifts towards innovation activities as it seeks to improve the capacity to produce the most recent science-based technologies (Lundvall & Borrás, 2005, p. 8). Ministries of economic affairs or ministries of industries tend to be at the centre of innovation policy (national innovation system).

According to Lundvall and Borrás (2005), the current discussion over STI policy centres on a construction of an ideal STI policy that works to boost economic growth. One of the recent policy recommendations for governments in middle-income countries is technology-driven structural change. This is mostly based on the success of East Asian developmental states (e.g., Japan, Taiwan, and South Korea) and the failure of Latin American countries (e.g., Argentina, Brazil). One of the key factors to boost economic growth is structural change or a movement of country's economic activities towards more sustained sectors (from primary sectors into manufacturing sectors). Based on the Prebisch-Singer hypothesis, which is based on the case of Latin America, a country cannot overly rely on their primary commodities to boost their economic growth due to the declining relative prices of primary products (Harvey, Kellard, Madsen & Wohar, 2010).

The UNIDO report points out the importance of looking into the growth of manufacturing subsectors, particularly the low-technology and medium-technology sectors (UNIDO, 2015). The transitions of developing countries into developed countries within the past 40 years were accompanied by technological



upgrading within the manufacturing subsectors (p. 3). The report proposes a “technology-driven structural change” to expand the modern formal industrial sector so that it can absorb a “pool of underemployed workers in agriculture” (p. 7). Table 1 below shows a classification of manufacturing subsectors based on their technological level used by the UNIDO report.

**Table 1** ISIC REV. 3 Technology Intensity Definition

<b>High-technology industries</b>	<b>Medium-high-technology industries</b>
1. Aircraft and spacecraft	1. Electrical machinery and apparatus, n.e.c.
2. Pharmaceuticals	2. Motor vehicles, trailers and semi-trailers Chemicals excluding pharmaceuticals
3. Office, accounting and computing machinery Radio, TV and communications equipment	3. Railroad equipment and transport equipment, n.e.c.
4. Medical, precision and optical instruments	4. Machinery and equipment, n.e.c.
<b>Medium-low-technology industries</b>	<b>Low-technology industries</b>
1. Building and repairing of ships and boats	1. Manufacturing, n.e.c.; Recycling
2. Rubber and plastics products	2. Wood, pulp, paper, paper products, printing and publishing
3. Coke, refined petroleum products and nuclear fuel Other non-metallic mineral products	3. Food products, beverages and tobacco
4. Basic metals and fabricated metal products	4. Textiles, textile products, leather and footwear

**Source:** OECD (2011)

A technology-driven structural change requires governments to assume effective roles and efficient STI policies. Existing studies highlight the success of East Asian developmental states (e.g., Japan, Taiwan, and South Korea) and the failure of Latin America. Gereffi and Wyman (1990) argue that while the East Asian governments used their commitments to boost economic growth through efficient STI policies to provide national security (e.g., in a cold war context), Latin American governments used politically-motivated economic nationalism (against foreign economic powers) to continue to rely on natural resources. Brazil did this to boost income growth until 1978, but then it stagnated in 1995. It bounced back in 2006 only due to a commodities boom (Kharas & Kohli, 2011, p. 283-284).

South Korea and Taiwan, as two examples of successful catching-up countries, rely on the effectiveness of government-funded research institutes (GRIs). The GRIs have disseminated technology to private manufacturing industries since mid-1970s (Lee, 2013; Shin, Kang, & Hong, 2012; Taylor, 2016, p.2010). Fu, Pietrobelli, and Soete (2011) argue that foreign technology would remain as static technology (embedded in imported machineries) if there is no proactive effort to develop indigenous technological capabilities Malaysia, a middle-income country with the highest technological capabilities in Southeast Asia, started a similar strategy in the mid-1980s (OECD, 2016a; Yusuf & Nabeshima, 2009). Therefore, under a technology-driven structural change concept, the national government needs to prioritize indigenous manufacturing subsectors upgrading. As consequences, their STI agents need to prioritize medium-technology development (manufacturing subsectors) above low-technology development (e.g., agriculture sector, resource-based industry).

### 3. Methodology: Discursive Institutionalism Approach to Policy Analysis

With regards to policy effectiveness, or policy study in general, there is already a growing consensus that institutions matter. This has led to the prevalence of institutional analysis or institutionalism as an approach to explain actors' behaviour within institutions. For example, economic scholars tend to emphasize strategic choice aspects; sociologists tend to focus on the institutionalization aspect; while political scholars tend to be somewhere in the middle (Jackson, 2010, p. 70). However, while institutionalism is now an indispensable element to policy analysis, it is not the sole explanation to particular policy outcomes. The institutionalism approach can only offer one alternative explanation of what influences policymakers' behaviour, which are then reflected in policy outcomes.

In general, the institutionalism approach can be divided into old and new institutionalism. While old institutionalism looks into the formal structure of institutions (formal institutional constraints), new institutionalism mostly looks beyond the formal structure. Schmidt (2008, 2015) proposes discursive institutionalism to complement the three older new institutionalisms, which are rational choice institutionalism (fixed rationalist preferences), sociological institutionalism (norms and rules), and historical institutionalism (path dependence). According to Schmidt, the three older versions of new institutionalism discuss how external factors influence or constrain policymakers' behaviour. Rational choice institutionalism focuses on rational agents (incentives), sociological institutionalism focuses on norms and social practices, and historical institutionalism on path-dependence nature of system (a self-reinforcing system).

Discursive institutionalism brings attention to what the actors actually say, thereby complementing the three existing approaches. Discursive institutionalism discusses policymakers as sentient agents (who think and speak) to understand what discourse exists and how this discourse influences policy outcomes. It has two important elements: ideas and discourse. Agents think and carry out ideas through discourse (interaction) under the context of ideas (Schmidt, 2008, p. 305). Discursive institutionalism adopts a top-down approach, i.e., "policy elites generate ideas, which political elites then communicate to the public" (p. 311). It works through two channels, i.e., coordinative discourse (interaction among policymakers) and communicative discourse (public persuasion by government).

The paper's choice to place emphasis on discourse also relates to existing studies on STI policy in Indonesia, particularly existing STI reports or indexes by international agencies (Cornell University, INSEAD, and WIPO, 2018; OECD, 2016b) and the work of Amir (2007, 2013); Aspinall (2015) and Patunru, Pangestu and Basri (2018). Existing STI reports already provide a thorough analysis of national STI development in Indonesia by using statistical indicators education level, Science, Technology, Engineering and Mathematics (STEM) data to explain the capacity to innovate. The work of Amir (2007, 2013) provides a comprehensive analysis on STI policy in Indonesia under the New Order era (1966-1999), particularly under the influence of B.J Habibie. His work sheds light on, not only the formal organizational structure, but also the politics behind it. Aspinall (2015) and Patunru et al. (2018) are also two important works on the Indonesian economic policy after the New Order era, particularly under the Susilo Bambang Yudhoyono administration (2004-2014).

The key argument by Amir (2013) is how the New Order regime in Indonesia built their technology policy upon 'technology nationalism', which refers to "a form of ideology to create a shared feeling of national identity and pride through technological artefacts" (Amir, 2007, p. 192). Technology policy, including its system, is not entirely governed by "a pure technical rationality", it also can be politically constructed (e.g., physical calculation and material constraints) (Amir, 2013, p. 160). This means that STI policy analysis needs to also incorporate non-technical aspects to complement technical constraints that determines policy outcomes. Amir's works show how rational choice (political economic incentives) and sociological institutionalism approaches (organizational structure) can be used to examine Indonesian technology policy. Additionally, based on the Indonesia's national development policy documents, the key agents and direction of STI policy in post-New Order Indonesia remain the same. Thus, a use of historical institutionalism approach is redundant as it will only result in conclusion on the self-reinforcing nature of a system (path dependence). Amir's works, however, provide a starting point on the importance of understanding how the Indonesian government perceives STI policy.

One of the latest criticisms of Indonesian economic policy is the strengthening of economic nationalism. Nationalism refers to the existence of a common destiny and common future in a certain geographical territory (Anderson, 1999, p.6). In Southeast Asia, it is often linked to anti-imperialism sentiment (Reid 2010). Aspinall (2015, p.77) argues that the current Indonesian nationalist discourse seems to be "very anachronistic". Patunru et al. (2018) dedicated an entire book to discussing the latest surge of nationalism discourse within the Indonesian economy. Within this book, Aspinall (2018, p.39-40) classifies Indonesian nationalism further into territorial nationalism (territorial integrity against foreign aggression), economic nationalism (protection of domestic producers and national resources against foreign competition), and cultural nationalism (protection of national culture). This book, however, does not discuss STI policy.

Borrowing Aspinall's conception of economic nationalism, this paper uses discursive institutionalism approach to examine how economic nationalism discourse manifests itself within STI policy

in Indonesia under the current President Joko Widodo's administration (2014-2018). This paper places an emphasis on economic nationalism discourse as one approach, among other alternative explanations based on older theories (e.g., political clientelism, populism), to understand STI policy in Indonesia. This paper also aims to complement STI policy reports that already provide statistical information to evaluate country's capacity to innovate. In order to demonstrate the manifestations of economic nationalism discourse within Indonesia's STI policy, first, this paper examines relevant STI policy documents (e.g., policy reports, policy plan books, budget reports) from President Joko Widodo's administration. This provides an overview of the Indonesian government's prioritization of low-technology development (e.g., agro-technology, food sector) over medium-technology development (e.g., electronics, automotive). Second, this paper examines official records (e.g., minutes of meeting, press releases, presidential speeches) as mediums for both coordinative and communicative discourses. Third, this paper also incorporates in-depth interview data to confirm the government's negligence in regard to medium-technology development.

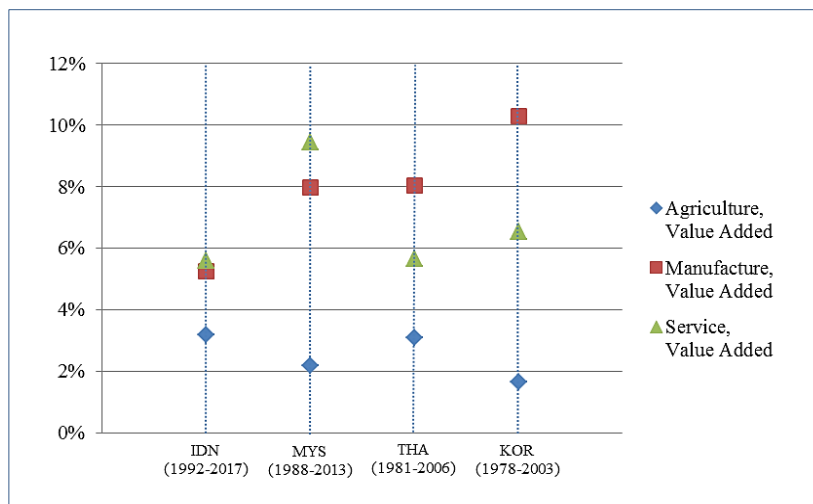
**Table 2** List of Documents

Science Technology and Innovation Policy	<ol style="list-style-type: none"> <li>1. The 2005-2025 Long-Term National Development Plan</li> <li>2. The 2015-2019 Medium-Term National Development Plan</li> <li>3. The 2015-2044 National Research Priority Agenda</li> <li>4. The 2015 Annual Report of Ministry of Research Technology and Higher Education</li> <li>5. The 2016 Annual Report of Ministry of Research Technology and Higher Education</li> <li>6. The 2018 Making Indonesia 4.0</li> </ol>
Coordinative Discourse	<ol style="list-style-type: none"> <li>1. The Minutes of Meeting of Commission VII, House of Representative of Republic of Indonesia (January 17, 2017)</li> <li>2. President Joko Widodo's speech in front of National Innovation Forum 2015 at the Centre for Research, Science and Technology (April 13, 2015)</li> <li>3. President Joko Widodo's speech in front of the meeting between Echelon I and II officials, the head of universities, and the head of higher education services from the Ministry of Research Technology and Higher Education (October 10, 2018)</li> <li>4. President Joko Widodo's speech in front of the cabinet plenary session to evaluate the 2015-2019 Medium-Term National Development Plan (December 2, 2018)</li> </ol>
Communicative Discourse	<ol style="list-style-type: none"> <li>1. The Annual Presidential Speech to Commemorate Indonesian Independence Day (televised) from 2015, 2016, and 2017</li> <li>2. Press Release for the "Four-years Achievement of the President Joko Widodo's administration on Campus Affirmation Policy and Citizen (indigenous) Innovation Growth" by the Minister of Research Technology and Higher Education (October 26, 2018)</li> </ol>
Additional Data	In-dept interview with the representative of University-based Centre of Excellence in Automotive Systems and Control, Sepuluh Nopember Institute of Technology, as one out of two University-based Centre of Excellence in medium-technology development (since 2014)

## 4. Discussion

### 4.1 The Indonesian Manufacturing Sector and National Technological Capabilities

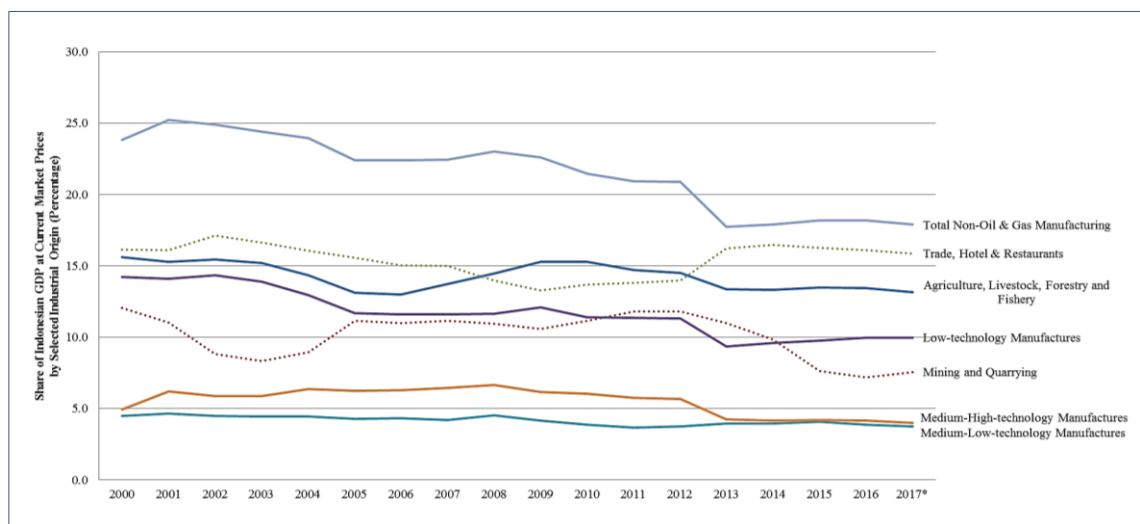
In regard to structural change, figure 3 shows a simple comparison of sectoral growth between Indonesia, Thailand, Malaysia, and South Korea. Currently, scholars often refer to the speed of structural changes in South Korean industry. Figure 3 shows the average growth of agriculture, manufacture, and service value added share to GDP in over a span of 25 years since the share of manufacturing value added surpass the share of agriculture value added. The figure shows that the structural transformation from agriculture to manufacturing in Indonesia is slower than it is in the other three.



**Figure 3** Average Growth of Sectoral Value Added to GDP (percentage)

**Source:** World Development Indicators (2018a, 2018b, 2018c)

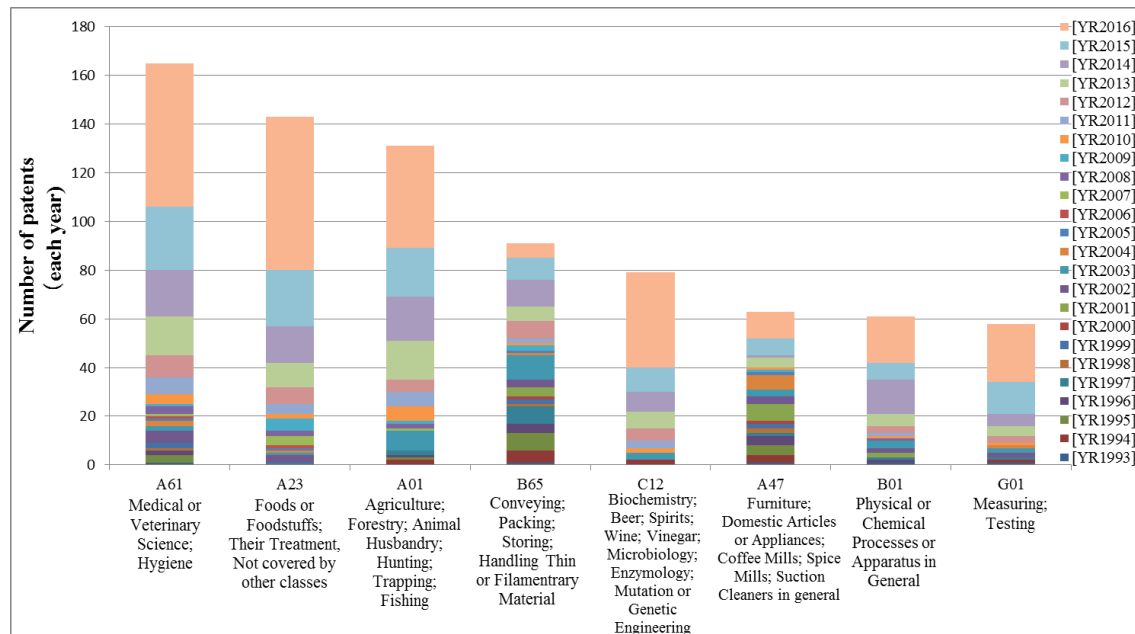
Therefore, it is important to investigate the growth of the Indonesian manufacturing subsectors' share of the GDP to see their diversification into medium-level technology subsectors. Figure 4 shows that from 2000 to 2017, particularly after the 2008 commodity boom, the share of agriculture in GDP increases. Meanwhile, the share of total non-oil and gas manufacturing declines. Furthermore, the low-technology manufacturing subsectors dominate the manufacturing sector, while the medium-technology manufacturing subsectors have not grown significantly within the past 17 years.



**Figure 4** Share of Indonesian GDP at Current Market Prices by Selected Industrial Origin 2000-2017\*

**Note:** The 2017\* data is a temporary data. Indonesian manufacturing sub-sectors are categorized into low, medium-low, medium-high technology sub-sectors according to ISIC Rev. 3 Technology Intensity Definition (OECD, 2011).

**Source:** Bank Indonesia (2018) and Statistics Indonesia (2018)



**Figure 5** Most Used IPC Codes (3 digits) in Indonesian Patent (Valid & Expired) 1993-2016

**Note:** Different colour represents different year (from bottom to top: 1993-2016). Each patent can be attached to more than one IPC code. These are the codes used by more than 50 patents from a total of 1394 patent data. This figure only counts patent data under “valid” and “expired” status. The patent data last checked on 07/08/2018.

**Source:** Indonesian Patent Office (2018)

National patent data is one of the best indicators with which to measure national technological upgrading. Instead of looking into the growth of total patents per year, this paper investigates their (IPC) codes to look for evidence of technological change (Figure 5). Despite the number of patents increasing in the past several years, there is a lack of the technological upgrading needed to proceed to a higher technological level. For the past 23 years (1993- 2016), most Indonesian patents have continued to be issued for agriculture products (A01), including food (A23). Majority of the patents for medical science (A61) were for organic-based medicine or beauty products (108 out of 163). There has been a lack of growth in IPC codes associated with medium-technology manufacturing products, such under code B for automotive patents (e.g., B60, B62), under code F for machinery patents (e.g., F01, F02), or under code H for electrical patents (e.g., H01, H03). Based on the patent titles, some of the patents listed under the B60 code (vehicles, in general) are mostly tires, agricultural machinery (e.g., tractors), and the bodies of cars and motorcycles (instead of the engine components).

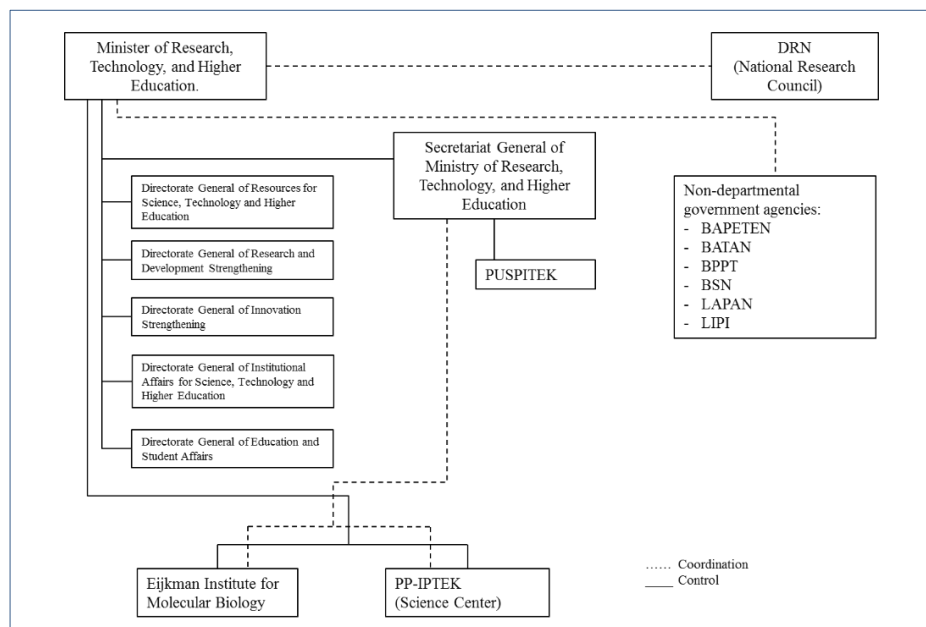
#### 4.2 Indonesian Science, Technology, and Innovation (STI) Policy: Assessing Policy Choice from the National Level down to the Local Level

Under a technologically-driven structural change concept, national technological changes or upgrades require an effective national STI policy brought about by triple-helix coordination (government-university-industry). This section argues that instead of economic catching-up, the Indonesian government uses economic nationalism discourse to promote the idea of national resource protection as their national economic strategy. Thus, its extension to the STI policy leads to a prioritization of agricultural and low-technology sector development over medium-technology sector development. The low-technology sectors dominate policy programs. Based on field observations, medium-technology sector development receives less attention, particularly in the technological dissemination stage.

#### 4.2.1 Science, Technology, and Innovation (STI) Policy under President Joko Widodo (2014-present)

One of the latest criticisms of President Joko Widodo involves his ‘statist-nationalist’ approach, which is a continuation from Susilo Bambang Yudhoyono’s administration (Warburton, 2016, 2018). This refers to a promotion over a state-centric resource-based economic planning heavily under narratives such as self-sufficiency in food and rice. Since the New Order regime under Suharto (1966-1998), the Indonesian government put a high prioritization over agricultural sector within their national economic strategy. According to Amir (2013) and Temple (2000) the regime heavily promoted two types of technology: agricultural technology and high technology (e.g., aircraft manufacture). When the regime ended in 1998, which coincided with the 1997/8 Asian Financial Crises, the Indonesian government started to promote more agricultural sector development instead of manufacturing sector.

Figure 6 shows the latest overall structure of STI policy agents in Indonesia. The Ministry of Science, Technology, and Higher Education is the main ministry in charge of STI policy. They receive support from other agencies, including the National Nuclear Energy Agency (BATAN), Nuclear Energy Regulatory Agency (BAPETEN), Indonesian Institute of Sciences (LIPI), National Institute of Aeronautics and Space (LAPAN), Agency for the Assessment and Application of Technology (BPPT), and Geospatial Information Agency (BIG). In addition, universities act as STI policy agents through various government programs under the Ministry of Research Technology and Higher Education. One of the key programs that emerged to boost the involvement of universities in R&D activities was the Centres of Excellence (COEs) program (more on Section 4.2.3). The House of Representative of the Republic of Indonesia, as one of national legislative assemblies in Indonesia, oversees the national budget allocation for policy programs from different sectors. Among a total of eleven commissions, Commission VII of the House of Representative of the Republic of Indonesia is responsible for STI policy. Based on the Minutes of Meeting of Commission VII pertaining to STI policy program coordination, the Ministry of Industry is not involved (more on Section 4.2.2). Historically, the Ministry of Industry has been a minor player within STI policy in Indonesia (see Hill and Pane 2018).



**Figure 6** Current STI Policy Agents in Indonesia

**Note:** This figure only incorporates selected sub-bodies that possess STI development function

**Source:** Author’s construction based on various governmental documents (see Table 2). The author constructs the figure as a modification from Bishry and Hidayat (1998, p. 10) and Amir (2013, p. 67) who provide organizational structure of STI policy agents in Indonesia throughout New Order regime.

Historically, B.J. Habibie was the key figure in the early formation of STI policy under the New Order's regime from the mid-1970s to late-1990s. He became the Minister of State for Research and Technology while holding another position as the chair of BPPT (Agency for the Assessment and Application of Technology), BPIS (Agency for the Management of Strategic Industries), and DRN (National Research Council). Under him, BPPT took control of major technology development while the IPTN (Nusantara Aircraft Industry, now Indonesian Aerospace) developed the Indonesian airplane manufacturing industry (Bishry & Hidayat, 1998). When the New Order regime ended with the 1998 Political Reform, it provided a momentum of anti-New Order sentiment which compromised their project for high technology.

Since the end of the New Order regime, the Indonesian government started placing more emphasis on agricultural development as part of a pro-poor approach. The 2000 National Development Budget Plan, as part of the 1999-2004 Broad Guidelines of State Policy (GBHN), states that the Indonesian national budget allocation for STI dissemination shall be used to develop agriculture-centric and natural resource-based technology. While this might be a natural response as part of democratic transition, a continuation of this approach would need further re-examination in light of current regional economic dynamics and Indonesia's current stage of development as a middle-income country.

The 2005-2025 Long-Term National Development Plan, released under the Susilo Bambang Yudhoyono's administration, claims that the Indonesian national economic strategy is directed to achieve their comparative advantages as maritime and agrarian country. The long-term development plan further states that the Indonesian industrial development prioritizes the national food security issues and national raw material potentials, in which resource-based industrial development is their future interest (Ministry of National Development Planning, 2005, pp. 30-33). When the President Joko Widodo presented his Nawa Cita strategy through the 2015-2019 Medium-Term National Development Plan, he actually offered similar strategy. Among the nine points of Nawa Cita, the sixth and seventh strategies are strategies designed to achieve national economic competitiveness through a set of sectoral priorities, i.e., food sovereignty; energy sovereignty and electric power; maritime and marine; and tourism and industry priorities.

There is a clear policy program prioritization of agro-industry, wood and forestry, fisheries, and mining as part of the national economic strategy to accelerate growth (Ministry of National Development Planning, 2015, pp. 6-113–6-118). As a consequence, STI policy to develop natural resource-based technology is also prioritized (Table 3). The Indonesian government has said that it will start prioritizing manufacturing-based technology in 2025-2030. This is a questionable choice considering AEC's promotion of GVC expansion. Furthermore, the local research and development institution argues that they have the capabilities needed to develop medium-level technology for manufacturing at the present time (more in Section 4.2.3).

**Table 3** The 2015-2044 National Research Priority Agenda

Research Area	Priority Rank Based on Development Period					
	2015-2019	2020-2024	2025-2030	2030-2034	2035-2039	2040-2044
Natural resource-based technology	<b>1</b>	6	5	4	3	2
Natural resource-based advance technology	2	<b>1</b>	6	5	4	3
Applied technology in manufacture	3	2	<b>1</b>	6	5	4
Applied technology in services	4	3	2	<b>1</b>	6	5
High technology	5	4	3	2	<b>1</b>	6
Frontier technology	6	5	4	3	2	<b>1</b>

**Note:** This priority rank refers to government's budget allocation (from first to sixth: 40%, 20%, 15%, 12.5%, 7.5%, and 5%).

**Source:** National Research Council (2016)

The two latest annual reports of the Ministry of Research Technology and Higher Education (2015, 2016) confirm the prioritization of the agriculture and low-technology sectors through STI policy programs.

This prioritization is also evident in the projects of the National Science and Technology Park (N-STP), Regional Innovation Cluster program (RIC), and Technology Business Incubator program (TBI). N-STP units, under the Ministry of Research, Technology, and Higher Education, focus on natural, resource-based product development (e.g., sago<sup>ii</sup>, wood, coffee, fisheries). Innovation clusters under the RIC program are for low-technology products (e.g., brown sugar, bananas, sweet potatoes, fisheries, crafts, and woven products). TBI program outputs aim mostly at increasing production capacities instead of technological capabilities (e.g., seaweed technology, electric stoves for Batik, milk pasteurization, green bean technology, rice technology).

Overall, there is a lack of attention being paid to medium-technology development and its dissemination to indigenous manufacturing industries covered by Indonesian STI policy programs. In addition, when the Indonesian Ministry of Industry (2018) released their “Making Indonesia 4.0”, this document did not contain an indigenous technology development program for medium-technology manufacturing. Food and agriculture industry (low-technology) continue to be the main emphasis. The Ministry’s strategy for the medium-technology manufacturing subsectors (e.g., the automotive and electronic sectors) only emphasizes the expansion of MNCs (domestic production) without any explanation of the technology transfer mechanism.

#### **4.2.2 Discursive Institutionalism: Economic Nationalism Discourse within STI Policy Making (Coordinative and Communicative Channels)**

The previous section presented the choice on the part of Indonesian government to prioritize agriculture and low-technology development within STI policy programs over medium-level technology for the manufacturing industry. The conception of technology-driven structural change demands the national government to support indigenous manufacturing subsectors upgrading through national STI policy. This means that the national government, though their STI agents, needs to focus more at the medium-technology development rather than low-technology. In this regard, the national government needs to put technological upgrading as their main objective for STI policy. However, the current Indonesian government frames their STI policy under economic nationalism discourse, which then takes form of national resource protection.

The discursive intuitionism approach offers one way to explain this choice through an examination of coordinative (among policymakers) and communicative channels (from policymakers to the public). Economic nationalism discourse very much frames the STI policymaking process in Indonesia under the President Joko Widodo’s administration. The best representation of coordinative channel is a Commission VII<sup>iii</sup> open meeting (House of Representative of Republic of Indonesia, 2017). The meeting discussed the 2016 STI policy outputs and the 2017 STI policy plan.

The sentiment “a protection of national resources” often appears in the reasoning from both Members of Parliament and the STI policy agents. First, the meeting confirms the parliament members’ demands for a prioritization of R&D in the energy, maritime, and food sectors. They stated repeatedly that the agricultural and fisheries sectors were vulnerable sectors that needed protection. The statements during the meetings show that the motivation for the STI policy programs is not technological changes or upgrades, but national resource protection.

Therefore, in my opinion, we have spent useless budgets for years, which have not resulted in *technology that solves national problems, both in food and industrial sectors*. [...] How far does your ministry protect these technologies so that they will not be sold to foreign interests? One of the examples is fish. Can the public access the technology? [translation by author] (A legislative member from the National Mandate Party)

We do not have our own ship; please think strategically (...). This is *to protect our sea border, economic value* and transportation value [translation by author] (A legislative member from Great Indonesia Movement Party)

In response to the Member of Parliament, the STI agents (non-elected bureaucrats) emphasized their programs for agricultural sector development. The head of BATAN claimed that BATAN works to increase



the income level of farmers. The head of BPPT promised to reduce the dependency on imported salt. The head of LIPI promoted their programs for food preservation, amphibian rice, and food stimulation for animals. The Minister of Research, Technology, and Higher Education highlighted the Ministry's cooperative program with the Ministry of Marine Affairs and Fisheries and Bogor Institute of Agriculture (IPB) to boost local fishermen's productivity. There was no discussion of indigenous medium-technology development for the manufacturing industry.

[...] BATAN owns one Science and Techno Park (STP) unit located at Pasar Jumat and three units that we refer as Agro Techno Parks because of *their focuses on the agricultural problem*. Therefore, we put focus on training, revitalization, and infrastructures at Pasar Jumat. Subsequently, we also conduct *training on animal feed production at the three Agro Techno Park units*, which are located at Musi Rawas, Klaten, and Polewari Mandar, in addition to the breeding and seed dispersal activities there. [emphases added; translated by author] (Head of BATAN)

Subsequently, this local canned food [...] Therefore, this can become *business in food preservation sector*, particularly during the Haji season; there are a lot of local foods that can be taken there. Next, we have also developed what we call '*amphibian rice*,' which we have not launched yet. Next, we also conduct *food stimulation for animals*, for example, we give cows vitamins [emphases added; translated by author] (Deputy Head of LIPI)

Another examples for coordinative channel are various occasions when President Joko Widodo delivers speeches in front of policymakers, particularly the STI agents. He often emphasizes resource-based development, mainly agriculture technology and innovation (e.g., coffee, palm oil, corn, salt). He framed national technological development and national innovation under resource-based idea instead of technological upgrading to support indigenous manufacturing sector. When President Joko Widodo made a remark on the need for Indonesia to catch-up economically, he did not frame it under technological upgrading context (Widodo, 2018a). Additionally, agricultural sectors also became his points when he discussed on human resource development and overseas training (Widodo, 2018a, 2018b). Below are some of his remarks on the Indonesian technological development.

In the relations with food sector, or cement, there is a wide price gap (between islands), from IDR 60,000-70,000, it increases to IDR 2,500,000 when it reaches a regency in Papua. These are the problems that need solutions from a good research. [...] I saw in Subang (a regency in Java), rice seeds that reach 8-9 tons per hectare. We already tried and confirmed the result. But it was a small-scale research. How (can we) nationalize this? [translated by author] (Widodo, 2015b)

I am not sure (when), around two or three years ago, I delivered my idea on the need to establish a university level Coffee Study. At that time, some laughed (at me). In my view, a coffee-study (and) palm oil-study are our big industries! And I was being serious [...] At the U.S. and Italy, there are coffee institutes, you can search for it yourself. Coffee is learned, researched, taught, from its method of planting and processing, industrialization stage, branding, packaging, and selling. They have these details. This is a multidisciplinary study on a world-class huge economic turnover. [translated by author] (Widodo, 2018a)

Perhaps, from the Ministry of Agriculture, I am asking for several hundred (people) from our fieldwork program to be sent for overseas training. Furthermore, in my understanding, our Ministry of Agriculture maintains a good relationship with Taiwan, who possesses good agricultural capabilities. [translated by author] (Widodo, 2018b)

Communicative discourse examines the mediums through which policymakers attempt to influence the public. One of the most effective mediums is the annual presidential speeches to commemorate Indonesian Independence Day (Widodo, 2015a, 2016, 2017). Along with the context of an Independence Day commemoration, the President always emphasizes Indonesia's colonial legacy and the protection of national resources as he describes Indonesian technological achievements. During his first speech in 2015 (Widodo, 2015a), he stated that self-sufficiency in food and illegal fishing was the two among four major problems that he wanted to tackle. Instead of promoting the Indonesian indigenous manufacture sector, he connected the challenges of globalization with the government effort to push for self-sufficiency in food (e.g., rice, corn, meat, chillies, and shallots). Economic nationalism discourse framed a national development strategy that resonated with the public sentiment on the anti-colonialism history in Indonesia. Throughout various occasions, President Joko Widodo continue to promote agricultural sector development rather than indigenous technological upgrading for manufacturing sector. This extends to his STI policy.

We have to be brave to fight against the theft of our marine resources. We have to be brave to sink illegal fishing to protect our fishermen. We have to be brave to protect every inch of earth (*bumi pertiwi*) for the welfare of our people. [translation by author] (President Joko Widodo 2017)

There is no way we can become a nation who possess food sovereignty if we have a very limited number of dams and irrigation channels across our agricultural land. [translation by author] (President Joko Widodo 2017)

Other than those presidential speeches, another example of a communicative channel is a recent press conference on the "Four-years Achievement of the President Joko Widodo's administration on Campus Affirmation Policy and Citizen (indigenous) Innovation Growth" by Muhammad Nasir, the Minister of Research Technology and Higher Education. On October 26, 2018, The Minister presented some of their achievements on technology and innovation products. On this occasion, the Minister also echoed the President's intention to develop a university-level coffee-study. The minister made a recommendation to the Indonesian universities to open a Coffee Science study, Coffee Economy study, Barista Education study, and other visionary majors needed by the market (Ministry of Research Technology and Higher Education, 2018).

Furthermore, the minister stated that, as an agrarian country, the development of technology and innovation capability in Indonesia needs to support society's welfare. Under this light, the Ministry of Research Technology and Higher Education stated that he aims to push and to escort the higher educational institutions in Indonesia to develop innovation in agriculture and plantation sectors. The Minister pointed out some of the best innovation products, such as a rice innovation from the Bogor Agricultural University and a salt innovation from Agency for the Assessment and Application of Technology (BPPT). Additionally, the minister also made a remark on an innovation on fisherman vessels that can support the local fisherman welfare in a maritime country (Ministry of Research Technology and Higher Education, 2018).

#### **4.2.3 Tracing Medium-Technology Research and Development Activity Down at the Local Level: The University-based Center of Excellence in Automotive Systems and Control Sepuluh Nopember Institute of Technology (PUIPT-SKO ITS)**

At the macro level, economic nationalism discourse binds the STI policy-making process to favouring low-technology development and neglecting medium-technology development for manufacturing. Field observations at a university-based Centre of Excellence in Automotive Systems and Control, Sepuluh Nopember Institute of Technology (PUIPT-SKO ITS) confirms this problem. Within Indonesian STI policy, the idea of the triple helix gave birth to the Center of Excellence (CoE) program as central STI agents, which contains both university-based CoEs and non-university-based CoEs. Among a total of 45 COEs established since 2014, there are only two COEs that conduct R&D in medium technology (Ministry of Research Technology and Higher Education, 2015, 2016). One of them is PUI-SKO ITS, which was initiated by a research team led by Mr. M. Nur Yuniarto (current executive director).

There is no sign [for government support in national automotive industry] in Indonesia. If we wait for the signs, it would not be realized. Deputy Director of PUI-SKO ITS (Wikarta 2018)

Based on the field observations and an interview with Mr. Alief Wikarta, the deputy director of PUI-SKO ITS, PUI-SKO ITS has the capabilities to develop medium technology in parts and components (automotive) but has problems disseminating their results to the industry. The deputy director argues that there is policy discoordination between the Ministry of Research Technology and Higher Education and the Ministry of Industry. According to the deputy, the Ministry of Industry expects the Ministry of Research Technology and Higher Education to be ready with their results first before presenting them to the Ministry of Industry. The Ministry of Industry does not provide facilitation for the networking and dissemination of R&D products for automotive sector (Wikarta, 2018).

There is a lack of support from the government (e.g., tax incentives) for indigenous automotive industries to work with local R&D institutions. They also do not provide a networking facilitation between local R&D institutions and automotive MNCs (subsidiaries). The deputy expresses his scepticism regarding the opportunities presented by the global production network as parts and components suppliers. He argues that since 1980s local suppliers have not been able to keep up with the cost (Wikarta, 2018). Overall, an observation at local level confirms that the government negligence over medium-technology dissemination to indigenous industry.

#### **4.3 Connecting Technology-Driven Structural Change and the Problem of Economic Nationalism within National STI Policy**

The discussion above highlights two key problems. The first problem is the influence of economic nationalism discourse on how the government directs STI policy in Indonesia. The economic nationalism discourse binds the Indonesian government to favouring agriculture and low-technology development (e.g., rice, coffee, fisheries, foods). With the growing importance of STI policy as a tool to support technology-driven structural change for middle-income countries, this means that the current STI policy programs in Indonesia do not accord the highest prioritization on the development of manufacturing technology (e.g., automotive, electronics). The growth of the manufacturing subsectors in Indonesia has already stagnated for 17 years, and the national patent data shows that the economy has been stuck at a low-technology level for the last 23 years.

This gives rise to another discussion on the problem of normative policy recommendations. There has been a growing obsession on how to replicate the successful catch-up experiences from East Asian developmental states, particularly as more countries find themselves facing the risk of middle-income trap. Various economic studies offer different policy recommendations with the intention to replicate the success stories, including the technological-driven structural change concept put forward by the UNIDO. There is a large volume of scholarly works echoing the same idea. One of the common problems of these policy recommendations is that they tend to take the government's for granted without looking further into their behaviour.

East Asian countries (e.g., Japan, South Korea, Taiwan) regard STI policy as a tool for their economic growth strategy, which led them to build effective triple-helix cooperation to develop indigenous technological capabilities from foreign technology to support the development of their manufacturing sector. It is important to note that these East Asian countries are countries with limited natural resource endowment. An examination of the existing discourse within STI policy in Indonesia, as an example among natural resource-abundance countries, shows that the national government does not start from "technology development" itself, but rather "resource-based development through technology". With abundant resources, governments in these countries will naturally construct their economic development strategy from natural resource development.

#### **5. Conclusion**

A discussion over STI policy can cover various dimensions (e.g., natural resource conservation, public health). Along with the growing importance of the idea of industrial catch-up, scholars start to pay

attention to how governments can manage national STI development to support national economic growth. This includes STI policy recommendations under the technology-driven structural change concept. The case of economic nationalism discourse and STI policy in Indonesia shows how the Indonesian government, with its middle-income level, still continue to frame STI policy under the idea of natural resource protection instead of technological upgrading to support growth in the indigenous manufacturing sector. This suggests a contrast against the STI policy in East Asian developmental states, as the main models for technology-driven structural change concept.

The suitability of STI policy recommendation does not only draw from measurable comparative indicators offered by STI reports or indexes, but also on governments' perception on the policy itself. Discursive institutionalism as an approach offers one way to understand government's perception based on their own words. Along the same lines as Schmidt, this paper offers an alternative explanation that can complement other existing explanation on actors' behaviour (e.g., pollical clientelism, populism). On a final note, this paper concludes it is important to re-visit the origins of a developmental state in order to have a better understanding on whether STI policy recommendation based on the East Asian catch-up experience can be replicated.

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## Corruption in the Nigeria Police Force: An Empirical Investigation into the Effects on Personnel and Police Activities

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### Abstract

This study explored corruption among the executive police officers in the Nigeria Police Force (NPF) and the effects on the welfare of operational police officers and police activities in Ilorin Emirate of Kwara state, Nigeria. The study employed a survey research design; both the questionnaire and interview were the instruments of data collection adopted. The convenience and purposive sampling techniques were used to select a total of 200 operational police officers and 2 Superintendent Officers respectively. The information gathered was analysed using Statistical Package for the Social Sciences (SPSS) and thematic analysis. The study found that corruption among the executive police officers contributes to the poor welfare of the rank and file officers and the insufficient police operational facilities in Ilorin Emirate of Kwara state, Nigeria. The study suggests the need to recognise a strong connection between the availability of basic police equipment and the well-being of the operational police officers, and effective policing, security of lives and properties in Nigeria.

**Keywords:** *corruption, Nigeria Police Force, personal wellbeing, Ilorin Emirate, police pension fraud*

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### 1. Background and Context

The Nigeria Police Force (NPF) is one of the major institutions in Nigeria pervaded by corruption and other unethical behaviour (Aremu, Pakes, & Johnston, 2009). This assertion was substantiated by a joint survey report submitted by the National Bureau of Statistics (NBS) and the United Nations Office on Drugs and Crime (UNODC) in 2017. The report revealed that the Nigeria Police Force is the most corrupt among state institutions followed by the judiciary (UNODC, 2017). Corruption and other misconducts among personnel of the Nigerian police manifest in acts like embezzlement, bribery, fraud, extortion and exploitation, falsification and alteration of investigation reports, fabrication of evidence, exchange of criminal suspect with innocent individuals, unlawful detention and torture of suspects and conspiracy or collusion with criminals among others (Folarin, 2012; Human Rights Watch, 2010a; Mohammed, 2013).

These acts have been widely researched and documented in literature. In other words, media reports, academic investigations, public debates and conferences have extensively discussed the widespread of corruption in the NPF and proffered numerous ways to curb the atrocities perpetrated by the personnel of the Nigerian police. Therefore, this study is not aimed at replicating the findings of the previous investigations. However, having revised a significant number of the (academic) literature, it was observed that many of the literature focused extensively on corruption and misconducts among the rank and file police officers, perhaps due to the fact that they operate within communities and their operations have a profound effect on the people.

For instance, Agbibo (2015a) observed that Nigerian society continues to experience uncontrolled crime rate because the law enforcement agencies have failed in all ramifications. The agencies are ill-equipped and their personnel are known for all kinds of transgressions being perpetrated at roadblocks, during patrols and other police activities. Oluwaniyi (2011) also stressed that police activities and services (such as patrols and response to emergency situations) to Nigerians have been commercialised. In most cases, people are required to fuel police vehicles before services are rendered; to give a sum of money to induce police activities, to resist arrest, and to keep people (both criminal and non-criminal suspects) in custody. Moreover, Nte (2011); Ibrahim, Isiaka, Salihu, Balogun, and Akande (2018) noted that public extortion (particularly from market men and women, sex workers, and drivers) is part of the daily activities of the Nigerian police personnel. Hoffman and Patel observed that 'an individual who refuses or fails to pay a bribe is likely to suffer a range of negative treatments, variously including lengthy delays at checkpoints, detention at the



agency office, threats of arrest and/or other violation charges, vehicle impoundment or tyre deflation' (Hoffman & Patel, 2017, p.9).

Additionally, Awojobi (2014) argued that police personnel usually overstep their bounds in the name of exercising their duties to Nigerians. For instance, civil disputes which the law clearly precludes the interference of police,<sup>1</sup> appear to have been completely merged with criminal matters. Self-interest has made police personnel to turn to civil disputes and handle civil wrongs in the same way as criminal matters (Awojobi, 2014). Adebayo and Ojo (2009) also claimed that police officers are frequently used as an instrument of threat, debt recovery and detention of debtors. Moreover, land disputes (involving no violence or criminal issues) that should be referred to, or addressed by a civil institution are now handled by the police. In many cases, individuals arrested for civil wrongs are not arraigned in the court, they are kept in custody on the request of the complainants (Akpunonu-Ogu, 2004). Although these misconducts and disrespect for the rule of law are perpetrated by the rank and file officers; however, many are in the form of a conspiracy between them and some executive officers (Igbo, 2017).

Nonetheless, scientific investigations that cover corruption among the executive police officers who are at the helm of police affairs are scanty. That is little or no attention is given to corruption among officers (including the police administrators) who are in charge of the management and allocation of police resources and funds, give orders and design policies and programs. By virtue of the provisions of the law, the chain of command in the NPF flows from the top to bottom- Inspector General down to the Constables. The Inspector-General of Police is the Chief police officer in the country and represents the highest cadre in the Nigeria Police Force followed by the Deputy Inspector-General of Police, the Assistant Inspector-General of Police, the Commissioners of Police, the Deputy and Assistant Commissioners in the various states. Other senior (middle) cadres include the Chief Superintendent and Superintendent Officer, Deputy and Assistant Superintendent Officer, Inspector and Sergeant Major Officer. These cadres represent the top positions in the NPF; powers, instructions, distribution of police funds and resources flow among these groups. While Sergeants, Corporals and Constables constitute the lower (rank and file) cadre (Laws of the Federation of Nigeria: Police Act 1990, S 6; Constitution of the Federal Republic of Nigeria 1999, S 215).

For the purpose of this study, corruption (and other related misconducts) in the NPF is categorised into two. The first category is corruption among junior police officers. Acts of corruption at this level include bribery, exploitation, extortion, falsification and alteration of evidence, collusion with criminals among others. These acts are usually perpetrated against the public in the course of patrols, roadblocks, stop and search, investigations, arrests and prosecution of criminal suspects (Human Rights Watch, 2010a; Karimu, 2015). Junior police officers are defined in this study as operational officers or rank and file police officers. The second category is corruption among senior police officers. It comprises of mismanagement and misappropriation of funds and resources meant to cover basic police operations, provision and maintenance of police equipment and amenities, improve officers' welfare condition (including incentives, pensions and gratuity). These acts are perpetrated against the institution of police (and operational officers) during budgetary and implementation, allocation of funds and resources to the various divisions of police, procurement of arms and equipment, disbursement of allowance and benefits (Edobor-Igbinovia, 2000; Imhonopi & Ugochukwu, 2013). Senior police officers are defined as executive police officers. Hence, the focus of this study is on the second category.

The effects of this form of corruption are immense. Its impact is widely felt at the lower level in the force and across the country. For instance, Onyeozili (2005) attributed the poor living condition of the junior police officers and ineptitude of the Nigerian police to mismanagement and corruption. The annual sum of money allocated to improve police operations: capacity to control crime and support other activities and projects always end up being either mismanaged or embezzled by senior police officers (Oyemwinmina & Aibieyi, 2016).

<sup>1</sup> Section 8(2) of the Administration of Criminal Justice Act 2015, Laws of the Federation of Nigeria states that 'a person shall not be arrested merely for committing a civil wrong or breaching a contract'. Also, several court rulings have held that it is unlawful for the police to be involved in civil disputes and contracts. See McLaren v. Jennings (2003) FWLR (Pt. 154) 537-358; Onagoruwa v. State (1998) 1 ACLR 435 at 483; Nkpa v. Nkume (2001) 6 NWLR (Pt. 710) 543 at 549-55; S.P.D.C. (Nig) Ltd v. Olarewaju (2002) 76 NWLR (Pt. 792) 38 at 46 – 47; and Fawehinmi v. I.G.P. (2002) FWLR (Pt. 108) 1355 at 1378 and 1385.

Human Rights Watch reported that Nigerian police lack basic facilities to handle or control minor crimes and modern sophisticated weapons to tackle armed bandits. There are cases where police personnel ran away from operation and shootout with armed criminals because their weapons-grade is lower to those of the criminals' (Human Rights Watch, 2010b). In addition, Gholami and Salihu (2018) and Edobor-Igbinovia (2000) asserted that the appalling condition of many police posts in Nigeria and their infrastructural deficiencies are as a result of massive misappropriation of police funds and resources. Moreover, the far-reaching effects of corruption in the institution of police as Karimu (2015) and Okereke (1995) have described, is evident in the deplorable condition of police barracks and non-payment of allowances and incentives of serving officers, and pensions and gratuity of the retired officers.

There are numerous reported cases of fund mismanagement and diversion and illicit enrichment among senior police officers in the NPF. Among the weighty cases that almost wrecked the institution include the case of the former Inspector General of Police, Mr. Tafa Balogun, who was found guilty of embezzling 17.7 billion Naira police fund and eight other count charge including money laundering in 2005 (Yusuf, 2013). Similarly, another former Inspector General of Police- Mr. Sunday Ehindero and some other senior officers in the force were indicted for embezzling the sum 16.4 million Naira meant to purchase police equipment in 2012 (PM News Nigeria, 2018). Also, Mr. Sunday Ehindero and his confederates are presently standing trial for other five counts charge including fraud and conspiracy (Premium Times, 2018).

Furthermore, a senior police officer, in charge of the budget at the Police Headquarters in Abuja, Mr. John Obaniyi was convicted for embezzling 5.67 million Naira, a fund meant for equipping police stations in the country and procuring arms and ammunition in 2012. Also, the former Director of Police Pension Fund- Mr. Esai Dangarbar and some other senior officers embezzled 24 billion Naira police fund (International Centre for Investigative Reporting, 2016). Additionally, in a nationwide biometric verification exercise conducted for all pensioners in the country in 2011 by the Presidential Task Force on Pension Reform, it was detected that over 258,000 fake or ghost pensioners are on the police pensioner-payroll, while the genuine pensioners were 141,764. The Task team reported that the Federal Government pay 5 billion Naira monthly as pensions, but the actual monthly expenditure is 1 billion Naira. This indicates that 4 billion Naira is being misappropriated every month by the executive police officers in charge of police pension (Onwukwu, 2012).

The above cases are the few among numerous reported cases, there are several others under investigation, while some are still in court. This study seeks to investigate the detrimental effects of these frauds on the Nigerian police, particularly on the welfare of junior officers, availability of basic resources and the overall impact on service delivery in Ilorin Emirate of Kwara State, Nigeria.

## **2. Objectives**

The objectives of the study are to investigate the effects of corruption among the executive police officers in the Nigerian police on the welfare of operational officers, the capability of the institution in term of resources and the overall impact on service delivery in Ilorin Emirate of Kwara State, Nigeria.

## **3. Literature Review**

### **3.1 Corruption**

One of the challenges facing researchers trying to study corruption is how to define the concept of corruption (Caiden, 2011). Despite different attempts scholars have made, the concept continues to raise serious issues and criticisms as to what acts constitute corruption. Thus, there is no single accepted definition of corruption (Quah-Jon, 2000). However, among the most widely adopted meanings of corruption are those provided by the World Bank, Transparency International Agency and the United Nations Development Programme.

According to the World Bank (1997), corruption is the illegal use of public resources or funds for personal gains. For Transparency International (2009) corruption is the abuse of entrusted power for private advantages. Similarly, corruption is described as the ill use of public power, office or authority for private benefit (United Nations Development Programme, 2004). These definitions only addressed corruption in the public sector or abuse of public powers; however, corruption also exists in the private sectors and at the individual level.

According to Folarin (2011), corruption is a broad term that describes immoral acts, such acts may include embezzlement, bribery, fraud, dishonesty, perjury, indiscipline, among others. Olken and Pande (2012) also stressed that act of corruption includes larceny and stealing, deceit and graft, contracts and procurement inflation, nepotism, favouritism and cronyism, extortion, tax evasion, trading of confidential information, and money laundering.

For the purpose of this paper, corruption is defined as any unethical conduct perpetrated by a group or employee of an organisation (public or private) which breaches the standards or sways the principles and policies of the organisation for the purpose of private or personal benefits. Therefore, police corruption can be described as the abuse and misuse of police power or any unethical conduct (including omission to act) perpetrated by police personnel which violates the standards, code of conducts, principles and the policies of the police force for personal or collective gains.

Police corruption is one of the significant challenges facing police departments in this modern time. It appears to be a universal phenomenon recurring in all society around the world- in developed, developing and underdeveloped nations (Sahin, 2010). Police activities and corruption go hand in hand; in some ways, corruption appears to be ingrained in policing (Ejikman, 2006). Sherman (1978) noted that corruption is a major feature of every police institution; every police department around the world has witnessed one scandal or the other at a point in time. Newburn (1999) also stressed that corruption is a phenomenon common in all police agencies in all societies and stages of police history; it is pervasive at all levels, and goes beyond operational officers and taking or soliciting for bribes. Similarly, Punch (2009, p.10) submitted that 'corruption is found in virtually all countries, in all forces and at all level of police organisation'.

Thus, police corruption is multifaceted and usually surrounded by ambiguity (Sahin, 2010). In general, it is characterised by collective participation, whether by a small group, special task squad or a substantial subdivision of the force rather than individual and largely fostered by leadership and organisational structure, an available opportunity which often vary within agencies and departments, the nature of police work and police culture (Ejikman, 2006). Withdraw and Dailey (2004) opined that certain elements which are embedded in the nature of police work predispose officers to corruption. Withdraw and Dailey further noted that in the process of law enforcement role, officers are frequently brought into contact with violators of the law who are willing to do whatever it takes (including giving bribes) in order to get away. As law enforcement agents who hold discretionary power to act or not to act at a particular situation, police officers have a significant opportunity to accept bribe and overlook crimes especially when there is no close supervision and where they are aware that the leadership or organisational structure is too loose to make them accountable for their action and in action.

Additionally, the underlying misconducts that form police corruption are, in most cases, concealed by the superior officers who are often part of the whole picture. Police profession, according to Agbiboa (2015b) is inextricably linked to multiple characters which are continually swerved as situation demands. While describing the complex nature of corruption in the institutions of police and the multiplicity of police behaviour in Europe and America, Punch (2009, p.3) observed that:

The actors at all levels have multiple personalities and identities and slip continually between them, espousing the official paradigm at one moment while acknowledging the operational code at the other. Police officers learn to become shrewd and crafty chameleons, opportunistically and instinctively changing colour to fit the arena, audience, and shifting occupational roles.

Hence, clandestineness and deception are inextricably features of the police organisation. Roebuck and Barker (1974) identified typologies of police corruption which includes corruption of the authority, kickbacks, opportunistic theft, shakedowns and internal payoffs. Corruption of authority involves an executive police officer(s) receiving unjustified benefits simply because he or she occupies an important position in the law enforcement institution. These undeserved gains may be in the form of material gifts, discounts on merchandise, and cash among others (Arrigo & Claussen, 2003). Corrupt officer(s) often presents such benefits as tokens from a respectable philanthropist for his efficient performance in the police work. In addition, it also involves the diversion of resources meant to support and improve police operations and projects by superior officers (Roebuck & Barker, 1974). Kickbacks as a form of police corruption involve

an officer(s) receiving bribes from private institutions or individuals (usually night-club and bar owners, lawyers, cab drivers, and towing agents) who intend to advance their clientele or who need police for the effective operation of their activities. Through kickbacks, these groups develop good relations with police in order to ease their private transactions (Arrigo & Claussen, 2003). Opportunistic theft is a form of police corruption generally perpetrated by operational officers in charge of the investigation of crime and accidents scenes. These officers have the privileges of entering and assessing crime scenes and materials; some of them exploit these privileges by obtaining material goods or money from crime scenes for personal use or by removing (in collusion with the suspect) valuable evidence from the scene in return for some rewards from the suspect or to intimidate and extort the suspect (Roebuck & Barker, 1974).

In addition, shakedowns as a form of police corruption occur when officers solicit inducement for overlooking a criminal offence, or not presenting evidence that incriminates a suspect, or not making an arrest, or not investigating a case properly. Shakedowns usually arise when corrupt officers are put in charge of policing drug and human traffickers' routes (Roebuck & Barker, 1974). Finally, internal payoffs are usually perpetrated within police institution especially between superior and junior officers. Officers who want to be posted for a special job assignment, work for certain hours in a week or want to be promoted may be required to induce other officers in charge of personnel management and administration (Bucak, 2009). The implications of police corruption are immense. Generally, it undermines the legitimacy of the police institution and damages police reputation for trustworthiness, and above all, it jeopardizes police-community relations which play a vital role in effective policing (Roebuck & Barker, 1974).

### **3.2 Personnel's Wellbeing and Challenges of Policing in Nigeria**

The police force is the most feasible and indispensable subsystem of the criminal justice system. Generally, the institution of police is considered as a body that initiates entry point into the criminal justice system, operates within communities and provides regular and direct contact with the general public (Hills, 2012). The police, according to Dambazau (2009), is a unique institution among other components of the criminal justice system because its activities and decisions have a profound effect on the existence of the general public. Therefore, the responsibilities of the police cannot be overemphasised.

Police responsibilities include the enforcement of law, prevention and detection of criminal activity, apprehension of criminal suspects, investigation of criminal activities and other violations of law, promotion and preservation of civil order and safety, provision of emergency assistance to the general public, protection of human rights and freedoms, management and control of traffic and resolution of conflicts among others (see Section 4, Part II of the Police Act, Laws of the Federation of Nigeria, 1990). In carrying out these responsibilities, police officers are required to engage in random patrol of neighbourhoods, respond to emergency calls, stop and search suspected individuals, investigate crimes, make and process arrests, debrief criminal suspects (victim and witness) and take statement, gather prosecution evidence, give evidence in court, foster good relationship with the public and educate the public on how to help police to prevent crimes (Deflem & Hauptman, 2015; Hills, 2012).

Generally, officers at the lower cadre (operational officers) in the police force are responsible for most of these activities. In the course of exercising their duties, they are more likely to sustain injuries, get ill and lose their lives (Karimu, 2015). For instance, some officers who are patrol agents are required to carry out their responsibilities in dangerous and inaccessible areas such as slums, drug zones, mountains and coastal areas. Also, most of them are susceptible to infections and diseases while responding to emergency situations such as accidents, disasters and injured suspects and victims of crime (Ojo, 2014). As a result of the dangerous and tasking nature of their job, many police officers have sustained serious injuries (temporary and permanent), some have developed mental health problems, while others have lost their lives while attempting to arrest criminal suspects and restore orderliness (Okereke, 1995).

To mitigate these challenges, there is a need for continuous improvement in officers' morale and provision of adequate apparatus. Bowles and Cooper (2009) noted that behind the mind of every career individual or employee is a desire for a favourable welfare at work and a conducive working environment. A favourable employees' welfare and working condition, according to Bowles and Cooper increase employees' commitment and make them better and more productive workers. Also, Gholami and Salihu (2018) observed that effective and efficient police activities are determined by officers' welfare (including

favourable incentives, conducive working environment, safety and training etc.), access to essential operational apparatus and public support.

Moreover, using Effort-Reward Imbalance (ERI) theory, Siegrist (2016) claimed that work role is on the basis of a social contract (between employee and employer) where rewards are mutually defined and parties expect some kind of reciprocity. Employees spent effort at work as part of the social contract in return for adequate rewards. The rewards are usually in the form of wages, esteem, career opportunities and job security. Siegrist further noted that failure (of the employer) to reciprocate adequately for the efforts spent (by the employee), in term of low rewards received, may provoke negative emotions and stress in the exposed party. In other words, positive emotions induced by appropriate social rewards stimulate employees' well-being and productivity. Also, Bakker, Christel, Johannes and Wilmar (2000) adopted this model in their study where they established that workers who experienced an effort-reward imbalance at work recounted different dimensions of strains (burnout) such as emotional fatigue and depersonalisation which frequently affect their productivity and commitment.

Similarly, Weiss and Cropanzano (1996) using Affective Events Theory (AET), explained that employees' cognitions, emotions, mental states (internal stimuli) and reactions to incidents (forms of rewards and incentives) at work environment play an important role in their performance, commitment, and job satisfaction. Positive-inducement (e.g. incentives) and negative-inducement (e.g. lack of safety, benefits and poor working condition) are emotional incidents at the workplace that have a significant psychological effect on employees' job satisfaction and performance.

Accordingly, a favourable police welfare in term of reasonable earnings (wages, salaries and incentives), health care and safety program, and other welfare benefits are essential in boosting officers' morale and commitment to the job as well as making them better and more productive police officers. In effect, it will enhance effective and efficient police activities (Gocke, 1945). Provision of a reasonable welfare package according to Seltzer, Alone, and Howard (1996), boosts officers' confidence in the job, increases their self-esteem and sense of belonging, and practically makes them effectual. However, in a situation where officers' welfare is lacking or not adequately provided for, officers may not put in their best in carrying out their responsibilities. Besides, it may lead them to engage in unlawful activities.

In Nigeria, the wellbeing of (operational) police officers is a key factor that continues to hinder personnel efficiency. Officers' welfare package and entitlements are neither attractive nor favourable (Hills, 2012). Adebayo (2005) argued that Nigerian police has witnessed decades of underfunding, the absence of promotion, undesirable living and working condition and neglect of the general welfare of rank and file officers who perform basic police duties in Nigerian communities. Besides, officers' allowances and emoluments are often not paid when due, their quarters are deplorable. Also, those who suffered injuries on the job are not catered for; likewise, those who died in the line of duty are not given appropriate burial rites and their families are not usually given the required compensations (Karimu, 2015).

The consequences of these on officers' motivation and commitment to the job are not far-fetched. Owen (2014) pointed out that the end result of the neglected police welfare in Nigeria are evident in the increasing level of unchecked crimes, illicit activities and insecurity in the country; indiscipline among officers and inhuman treatment many Nigerians have suffered in the hands of police officers. Similarly, Agbibo (2015b) noted that failure of the government to provide adequate welfare for police officers (particularly the rank and file) is apparent in poor response to emergency situations and maintenance of order and officers' involvement in illegitimate activities. Oluwaniyi (2011) reported that because of the meagre income and incentives given to officers, all roadblocks and patrols in community streets and highways in Nigeria have become a business enterprise where police harass and extort money from the motorists and other road users. Also, arbitrary arrests of innocent Nigerians for the purpose of getting bail charges are now the order of the day among the police personnel.

Furthermore, the apparent dismal performance of the NPF cannot be totally attributed to the neglect or poor state of personnel's welfare, rather scholars have also affirmed that the essential police resources are not sufficient enough to safeguard lives and properties in Nigerian communities. Police officers do not have access to vital operational apparatus such as functional police posts and patrol vehicles with digital communication facilities such as computers, internet and database, camera drones, police radio, interrogation apparatus among others (Gholami & Salihu, 2018). Availability of these tools would have enhanced and

simplified police operations in crime control, response to an emergency situation, call for backup and speedy exchange of information between the police and other law enforcement agencies when necessary (Solar, 2015).

Personnel is increasingly exposed to avoidable risks by patrolling (on foot and without appropriate weapons) inaccessible and dangerous places that could have been conveniently monitored through drone surveillance system (Gholami & Salihu, 2018). Gholami and Salihu stressed that some police stations lack basic facilities such as running water, electricity, flush toilet, resting and changing rooms. Also, 24-hour functioning telephone hotlines which people can easily dial or call when in trouble or for emergency purposes are not available in virtually all police posts in Nigeria. It is, therefore, practically impossible for Nigerians to reach the nearby police station for assistance. All these inadequacies, according to Mohammed (2013) are consequences of mismanagement and embezzlement of police funds meant to provide the needs and improve operations.

#### **4. Materials and Methods**

Nigeria operates a unified police force with jurisdictions in all states in the country. The police command in Nigeria is categorised into 12 major divisions. Ilorin Emirate (the focus of this study) is the capital city of Kwara state, located in the North-Central geopolitical zone of Nigeria. It is an ancient city with a population of over 777,667, which makes it the sixth largest urban centre in Nigeria in term of population (NBS, 2016). Administratively, Ilorin is divided into 3 local government areas. Furthermore, Ilorin and other cities in Kwara state are categorised (alongside 2 other neighbouring states: Kogi and Ekiti) under Zone 8 Division in the Nigeria Police Command. The police staff strength in Kwara state is about 4,325 officers (NPF, 2018). However, the total number of police officers (executive and rank and file officers) serving in Ilorin is not known because there are no official figures available to the public.

Thus, the population of this study include all junior or operational police personnel serving in Ilorin Emirate, the capital city of Kwara State, Nigeria. Since it is not possible to cover or include all the officers, a variety of sampling techniques including convenience and purposive sampling were employed to select samples for this study. The convenience sampling was used to select a total of 200 junior or operational police officers (Sergeants, Corporals and Constables) from all police divisions in Ilorin Metropolis, and purposive sampling technique was used to select 2 Superintendent Officers. The selection of the 2 Superintendent Officers was considered necessary in order to corroborate the opinions of the junior officers. They were selected from two districts (Police Division A and C) in Ilorin Metropolis. It should be noted, that the researcher initially requested to interview the heads of police divisions (Divisional Police Officers: DPOs) in Ilorin or the next in command, the requests were declined. However, two divisions (A and C) later recommended Superintendent Officers each to participate in the interview. Thus, these two officers participated voluntarily with the approval of their superior officers.

Furthermore, a structured questionnaire and open-ended interview were the research instruments used in data collection. The questionnaire was used to gather quantitative information from the selected rank and file officers. It was considered appropriate in this kind of study given the nature of their everyday jobs and the rules guiding their operations. In addition, police protocol prohibits them from attending to unofficial matters while on duty; also, they may be stressed out after their daily working hours. For these reasons, they cannot respond to questions if other methods were adopted.

Many of them were approached at their various posts- roadblocks, checkpoints, patrols and police stations around Ilorin where they were given the questionnaires. They were told to complete them at their leisure. Initially, a total of 375 questionnaires were distributed out of which 200 were returned and well completed. The questionnaires were divided into 3 parts: the first covered the socio and demographic information of respondents- age, gender, education, and rank, the second part centred on questions relating to officers' perception of corruption in NPF and accessibility to modern operational apparatus and the third part covered issues relating to officers' well-being and efficiency. In addition, the contents of the questionnaire were evaluated by 2 research experts in police study from the Faculty of Social Sciences, University of Ilorin, Nigeria for validity purpose.

Additionally, the qualitative data was gathered through a phone interview with the 2 Superintendent Officers. The officers were fully informed of the objectives of the study and assured of their anonymity. Since

it was not possible to conduct the interview in their offices and while on duty, each officer provided a mobile/telephone number and fixed a date (off-duty) for the interview. Each interview lasted for about 20 minutes. Finally, the questionnaire information was coded and analysed using the Statistical Package for the Social Sciences (SPSS). Frequency and percentage distributions were generated and correlation on some responses relating to the research objectives was made. Also, thematic analysis was used to examine the key themes within the qualitative data in relation to the objectives of the study.

## 5. Results

**Table 1** Demographic distribution of all the respondents

Sex	Frequency %	Age	Frequency %	Education	Frequency %	Rank/Cadre	Frequency%
Male	137(68)	25-30	51 (25)	Primary Edu.	63 (31)	Superintendent	2 (1)
Female	62 (32)	31-35	83 (41)	Secondary Edu.	112 (55.4)	Sergeant	46 (23)
		36-40	44 (22)	ND/NCE	25 (12.6)	Corporal	83 (41)
		41-above	24 (12)	HND/Degree	2 (1)	Constable	71(35)
<b>Total</b>	202 (100)		202 (100)		202 (100)		202 (100)

**Source:** Researcher Field Survey, 2017

Table 1 presents the socio-demographic distribution of all the respondents. The table shows that 68% of the respondents were male and 32% were female police personnel. Also, 25% of these respondents were between the ages of 25-30 years old, 41% were between 31-35 years old, 22% were 36-40 years old and 12% were between the age of 41 years and above. In addition, it can be observed from the table that 31% of the respondents had primary education, 55.4% had secondary education, 12.6% had National Diploma/National Certificate in Education and 1% had Higher Diploma Degree/Degree. Also, 1% of the respondents were Superintendent Officers, 23% were Sergeant Officers, 41% were Corporal Officers and 35% Constable Officers.

**Table 2** Distribution of respondents' perception of the widespread corruption among senior police personnel.

Items	Frequency	Percentage%
Strongly Disagree	0	0
Somewhat Disagree	0	0
Neither agree nor disagree	12	6
Somewhat Agree	76	38
Strongly Agree	112	56
<b>Total</b>	200	100

**Source:** Researcher Field Survey, 2017

Table 2 indicates that while none of the respondents strongly and somewhat disagree that there was corruption among senior police officers, 6% neither agree nor disagree; also, 38% and 56% of the respondents somewhat agree and strongly agree respectively that there was corruption among senior officers in the police force. Moreover, the respondents interviewed corroborated the above results. The first respondents (Superintendent Officer 1) stressed that

‘among the major reasons why the Nigerian police and other security institutions continue to fail Nigerians in controlling crime and restoring peace and orderliness is the unavailability of the basic equipment. The enormous amount of money earmarked in the yearly budget, intervention funds and donations meant to provide police basic amenities and finance activities have been squandered or misappropriated by some officers at the top’.

Additionally, the second respondent (Superintendent Officer 2) also noted that

‘there is massive corruption in the Nigeria Police Force most especially at the top level. The impacts of the massive looting of police funds are evident in the present deplorable condition of the police stations or posts in the country and the ineffectual police services’.

The implication of these results is that there is corruption among the senior police officers who are in charge of the allocation and distribution of police resources.

**Table 3** Distribution of respondents’ perception of their general welfare (income, incentives, promotion, insurance, medical health care and conducive quarters) as junior officers and availability of operational resources.

Items	Frequency	Percentage %
Very Poor	66	33
Somewhat poor	94	47
Moderate	40	20
Somewhat Good	0	0
Very Good	0	0
<b>Total</b>	<b>200</b>	<b>100</b>

Items	Frequency	Percentage%
Inadequate	106	53
Somewhat Inadequate	90	45
Neither adequate nor inadequate	4	2
Somewhat Adequate	0	0
Adequate	0	0
<b>Total</b>	<b>200</b>	<b>100</b>

**Source:** Researcher Field Survey, 2017

Table 3 shows that 33% of the respondents perceived that their welfare as junior police officers (in term of incentive, reasonable income, promotion, insurance, medical care and retirement benefit) was very poor, 47% held that it was somewhat poor and 20% were of the view that it was moderate; while none of the respondents perceived their welfare to be somewhat good or very good. In addition, information gathered from the interview suggested that the general welfare of the junior police officers in the NPF was not favourable. Superintendent 1 observed that

‘... the physical conditions and working environment of most of the police stations in the country (not only Ilorin) are appalling, shattered and lack basic tools such as toilet facilities, water system, electricity and electronic office gadgets such as the computers, internet; and other communication apparatuses. Also, the welfare of officers is pitiable. The barracks and quarters are uninhabitable...., the income is meagre and the inducement funds meant to reinforce officers are not often shared, promotions are often influenced or bought, and the health care program is often not accessible.....’.

Similarly, Superintendent Officer 2 noted that

‘... there is a lack of medical services (and insurance) for the police officers and their families. In most cases, officers who sustained injuries in operation are not taken care of, they often spend out of their meagre income to treat themselves. Also, families of officers who lost their lives on duties are often not paid. Also, the entitlements- gratuity and pensions of retired officers’ are not paid’.

The implication of these results is that majority of the respondents (including the Superintendent Officers) held the perception that the welfare of junior police officers in the force was poor.

Additionally, Table 3 also indicates that 53% of the respondents were of the perception that the police operational facilities were inadequate, 45% said they were somewhat inadequate, 2% held that they were neither adequate nor inadequate, and none of the respondents held that they were adequate. Also, while



responding to questions on the availability of the essential equipment, the interviewed respondents indicated that the basic and sophisticated equipment needed for effective police operations are lacking. Superintendent 1 commented that

‘...police personnel and stations are poorly equipped. They lack all the required or essential facilities to police and secure communities. The patrol vehicles are always not in good conditions..., many police officers do not have access to communication gadgets, bulletproof vests and modern sophisticated weapons. In fact, inadequate police equipment and facilities are the major factors hampering effective police operations in Nigeria’.

In the same way, the Superintendent 2 also stated that

‘a significant number of the police posts or stations in Nigeria do not have basic communication or IT facilities such as computers and internet network, secret camera and other IT conveniences. In fact, basic office tools are absolutely lacking..., even the arms and ammunition given to officers cannot be compared with the ones usually carried by criminals’.

He further stressed that

‘one of the annoying things is that, in this 21s century, pen and papers recording system is still the common practice across all stations in Nigeria and people expect officers to perform miracles. ....officers are trying their best with the available resources to carry out their mandates to Nigerians; however, we cannot expect them to perform beyond what they are presently doing’.

These results clearly indicate that the essential facilities and tools needed for effective police operations are not available in the police stations.

**Table 4** Distribution of respondents’ perception of corruption as an underlying factor responsible for their present welfare condition and inadequate police operational resources

Items	Frequency	Percentage %
Strongly Disagree	0	0
Somewhat Disagree	0	0
Neither agree nor disagree	16	8
Somewhat Agree	68	34
Strongly Agree	116	58
<b>Total</b>	<b>200</b>	<b>100</b>
Items	Frequency	Percentage%
Strongly Disagree	0	0
Somewhat Disagree	2	1
Neither agree nor disagree	22	11
Somewhat Agree	74	37
Strongly Agree	102	51
<b>Total</b>	<b>200</b>	<b>100</b>

**Source:** Researcher Field Survey, 2017

Furthermore, the respondents’ perception of corruption as a factor responsible for their present welfare and inadequate operational resources at the police posts is presented in Table 4. It can be observed from the table that majority (92%) of the respondents agreed that corruption is responsible for their present welfare condition as junior police officers, 8% neither agreed nor disagreed, while none of them disagreed. Similarly, 88% agreed (strongly agree and somewhat agree) that the widespread of corruption in the NPF is

responsible for the inadequacies of police operational apparatus, 11% neither agreed nor disagrees, and 1% somewhat disagree.

**Table 5** Correlation analysis of the respondents' perception of corruption among the senior police personnel and the welfare of junior officers.

Variables	Mean	SD	Significant Level	Correlation Coefficient (r-value)	p-value
Corruption	65.49	7.480	0.01	0.825	0.003
the welfare of junior officers	65.12	8.290			

**Source:** Researcher Field Survey, 2017.  $p < 0.01$

Moreover, table 5 indicates that the calculated r-value = 0.825 is greater than 0.5 ( $0.825 > 0.5$ ), also the estimated p-value = 0.003 is less than the level of significance 0.01 (i.e.  $p < 0.01$ ). Therefore, there is a positive correlation between corruption among the senior police officers and the present well-being of the junior police personnel in (NPF) Ilorin metropolis of Kwara State, Nigeria.

**Table 6** Correlation analysis of the respondents' perception of the corruption among the senior police personnel and availability of operational resources.

Variables	Mean	SD	Significant Level	Correlation Coefficient (r-value)	p-value
Corruption	59.616	8.431	0.01	0.971	0.000
Availability of operational resources	61.891	7.257			

**Source:** Researcher Field Survey, 2017

Similarly, table 6 shows that the calculated r-value  $0.971 > 0.5$ , also the p-value  $0.000 < 0.01$  the level of significance 0.01 (i.e.  $p < 0.01$ ). Thus, there is a correlation between corruption among the senior police officers and the inadequate operational resources available to safeguard communities in Ilorin metropolis of Kwara State, Nigeria.

## 6. Discussion

From the findings presented, it can be observed that the welfare of operational or rank and file police officers (in term of incentives, reasonable income, medical care and safety program, and retirement benefit etc.) in Ilorin Emirate is poor, and there are inadequate operational facilities (such as IT gadgets, sophisticated arms and ammunition) required for effective police operations in Ilorin Emirate of Kwara State, Nigeria. These challenges were attributed to the massive misappropriation of police funds and resources by the senior or executive police officers in the force.

In addition, the correlation analysis suggested positive relationships between corruption among senior officers who are at the helm of police affairs and the present poor welfare condition of junior officers and inadequacies of operational resources in police posts in Ilorin Emirate of Kwara state, Nigeria. The implications of these results are: the embezzlement of police funds and resources in the NPF is blameable for underpayment, inadequate accommodation, poor medical and health care and safety program for junior police officers; absence of basic police equipment, inadequate operational vehicles, weapons and erratic communication facilities that would have assisted police in crime control and maintenance of order.

Accordingly, the strain of the neglected officers' welfare combined with inadequacies of the resources appears to have made operational officers whose obligations are to control crime in Nigerian communities through patrol and roadblock formation, to put less effort into the job. Officers' appears to have lost enthusiasm for the job as a result of the failure of the government to adequately reciprocate the efforts they spent at work in term of reasonable income, payment of incentives, and the avenue for promotion opportunities, provision of medical and health care program and conducive living and working environments. In other words, the positive inducements officers expected to receive from their employer or superiors due to the dangerous and tasking nature of their work is practically lacking; thus, the experiences that emerged (from

such negative stimuli) at the workplace seems to produce certain strains and fatigue in officers. Consequently, their drive and commitment to safeguard communities are affected.

The findings, therefore, corroborate the results of the previous studies that attributed the ineptitude of the Nigerian police to poor personnel's welfare, inadequate facilities and corruption that has pervaded the institution. For instance, the Human Rights Watch (2010a) found that Nigeria police has been grossly incapacitated over the past years in its role to adequately police communities and protect lives and properties due to the insufficient and/or unavailability of modern police equipment. The Nigerian police personnel are left with limited resources to patrol communities and control crimes. In addition, Adebayo (2005) found that officers' perceived negative workplace fairness, the absence of incentives and corrupt leadership in the Nigerian police manifest in officers' indiscipline, public extortion, disrespect for the rule of law and fundamental human rights, inaction and neglect of crime and services.

Additionally, in a study titled pay, reference points and police performance, Mas (2006) found that police incentive and/or working condition that is below a reference point reduce job performance. Mas noted that in the months following the loss of arbitration by the New Jersey police, the rate of arrest and prosecution declined and crime reports increased. The findings strongly suggest that the more law enforcement agents are paid, the better they are committed to their job. In other words, when officers are paid wages/salaries below what is expected or desired, they are more likely to overlook crimes and violators of the law, but when adequate salary and other demands are received they are more willing to work and committed to their job. Thus, consideration for a favourable police welfare and working condition with regard to a reference point affect performance and workplace behaviour.

## 7. Conclusion and recommendation

This study examined the phenomenon of corruption among executive police officers in the NPF as an underlying factor responsible for the deficient officers' welfare, inadequate police operational apparatus and the overall impact on the ability of the police to safeguard lives and properties in Ilorin metropolis. From the findings presented, the author, therefore, concludes that corruption (mismanagement and misappropriation of police funds) among senior or executive police officers in the NPF is responsible for the poor welfare condition of junior or operational police officers and inadequate facilities as well as the inability of the police to exercise their mandates to people in Ilorin Emirate of Kwara state, Nigeria.

Thus, to eradicate corruption in the Nigeria police force, there is a need to ensure transparency in the police budgetary proposals, implementation and procurement processes. Analysts have stated at different fora that among the factors that encourage corruption in the Nigerian public sector are secrecy in the budgetary and its implementation and procurement processes. As Osoba (1996) has noted, most of the public institutions hardly give a full list of items budgeted for. In most cases, the overall figures needed by institutions are presented. Therefore, Nigerian authority should take appropriate steps to improve budgetary transparency not only in the police but also in all the public institutions. The authority should ensure that every item or activity for which provisions are being made are clearly indicated. In addition, there is a need for a periodic and comprehensive assessment of how the funds and resources allocated to the police force are expended. The assessment should be carried out by an authorised institution with the supervision of the anti-corruption agency. Moreover, all the 12 police commands in the country should be mandated to publish their procurement and financial reports periodical.

Furthermore, officers' welfare can be improved by resuscitating and equipping the existing police welfare packages (like the insurance and health care program, safety measures, junior officers' housing scheme among others) through adequate funding and monitoring. Also, all personnel's incentives and allowances should be removed from the Nigerian police's expenditure. Officers should receive their monetary incentives and other benefits the same way their monthly salaries are paid directly to their various bank accounts by the federal government through the ministry of finance. In addition, there is a need to rejig the support program for officers that suffered (temporary and permanent) injuries, those with mental health issues and families of officers that lost their lives on duty. Finally, there is a need to recognise the strong connection between the well-being of the operational police officers, security and safety of citizenry and the entire nation.

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## Pathways to Greater Success for Adolescent Learners of English as a Second Language

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### Abstract

This review article describes approaches that teachers may find useful in teaching adolescent second language learners. It is argued that adolescents are a special group due to development challenges such as physical, emotional and behavioural changes. What instructional approaches are recommended by second language learning specialists? What on-line resources are available for teachers who decide to add one or more of the approaches presented in this article? The author reviewed the academic publications of four groups of international providers of resources for teachers of English as a second language. They were (1) the British Council, Cambridge International Education, Oxford Education, Harvard Education, and the Centre for Language Studies of the National University of Singapore, (2) specialised journals, including the *Asian English Language Journal* and *The Reading Teacher*, (3) publishers of educational learning materials, and (4) on-line support sites such as Lexia Learning, ESOL Courses, Extensive Reading Foundation, and Fluent U. The review focused on teaching approaches specific to modern-day adolescent learners of English as a second language. In deciding which of the approaches for inclusion in this review article, two criteria were used: (1) approaches that were relevant to adolescents already familiar with computers and the Internet, and (2) approaches that were relevant to adolescents world-wide – not limited to learners in particular countries or regions. Seven approaches, in the opinion of the author, met these criteria. They are: i) decoding skills; ii) learning English through songs; iii) learning English through Interactive On-line Lessons and Quizzes; iv) Extensive Reading (ER) Programme, including a list of graded readers; v) Dictation; vi) Structured Oral Presentations; and vii) a Topic-based Curriculum. This review article concludes by observing that adolescents whose first language is not English, and who complete their secondary school education **without** attaining at least minimum skills in English, will be seriously disadvantaged, not only in their personal lives, but in future career opportunities. The Appendix provides information about ‘graded readers’ for those who are unfamiliar with this resource for teachers of English as a second language.

**Keywords:** *adolescent learners, decoding skills, extensive reading, graded readers, topic-based curriculum*

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### 1. Introduction and literature review

Much has been written about the importance of beginning the process of learning English as a second language as early as possible. However, many teenage students have been unable to acquire even minimal English skills in their early years. One question for secondary school teachers of English as a second language is how best to help those students ‘catch up’? Are there teaching approaches that are particularly suitable for adolescent learners? Fortunately, there has been much research on teaching approaches that may be more appropriate for the teenage learner (Brandon, 2018).

#### 1.1 Learning the first language

Before proceeding to discuss approaches to learning a second language, it is important to review some facts about the learning of one’s first language. It is well accepted that linguistic competency in one’s first language is not easy for most many students – it is a challenge. It is not something that can be achieved in just six or eight years or, for many, not even in 12 years. This is true for school children everywhere in the world.

Acquiring a language normally refers to an *unconscious process*, as when children *acquire* their first language. This process consists of the parents communicating with the child through daily interactions in their home and community environment on a daily basis. That process is natural and unconscious and begins at birth (Krashen, 1982). The acquisition of a child’s home or first language continues more formally when the child enters school. This may be in a pre-school setting or in a so-called ‘regular’ school at, say, six years of age.



It's important to remember that when Thai children, for example, are *learning* a second language such as English, they are also learning math, science, social studies, art, music, and physical education *in Thai language* (Wallin & Cheevakumjorn, 2018). In the case of Thailand, one recent piece of evidence suggests that developing academic proficiency in one's first language is difficult for many learners. Some 380,000 grade 12 students who sat for the 2016 O-Net (Ordinary National Education Test), only 53% passed their own Thai language exam (Mala, 2017).

Adolescent learners are expected to achieve a basic level of literacy in their own language, that is, learn to read and write that language. But, in addition, they are also expected to acquire basic skills and understandings in core academic subjects – mathematics, science, geography, literature and history. And, to do this successfully, they need a sufficient level of competence in their own language. These are normal expectations. However, by adding the requirement of acquiring skills in a second language at the same time, places an additional burden on adolescents.

## 1.2 Developmental Challenges

In addition to the challenge of learning their first language, as well as a second language, adolescents are also facing personal developmental challenges. They are in an in-between stage between childhood and early adulthood. The many changes experienced by adolescents can be grouped into five major categories: physical, cognitive, emotional, social, and behavioural. Some key features of each of these are described in this section.

### 1.2.1 Physical development

Adolescents experience a growth spurt, involving their bones and muscles. This begins in girls around the ages of 9-12 and in boys around the ages of 11-14 (Resource Center for Adolescent Pregnancy Prevention [ReCAPP], 2018). The physical changes of early adolescence often lead to:

- Being treated in a new way by those around them. They may no longer be seen as just children, but as sexual beings to be protected — or targeted. They face society's expectations for how young men and women "should" behave.
- New concern with physical appearance and body image: both adolescent boys and girls are known to spend hours concerned with their physical appearance. They want to "fit in" with their peers yet achieve their own unique style as well.

Many adolescents experience dissatisfaction with their changing bodies. Weight gain is a natural part of puberty, which can be distressing in a culture that glorifies being thin. In response, some adolescents begin to diet obsessively. About 20% of all females aged 12-18 engage in unhealthy dieting behaviours. Some of these adolescents develop eating disorders such as anorexia nervosa or bulimia (ReCAPP, 2018).

### 1.2.2 Cognitive and Social Development

There is a dramatic shift in thinking from concrete to abstract which gives adolescents a new mental tool which makes it possible for them to analyse situations logically in terms of cause and effect. This gives them the ability to think about the future, evaluate alternatives, and set personal goals. It is now possible for them to engage in introspection and mature decision-making. As a result, most developing adolescents will:

- become more independent
- take on increased responsibilities, such as babysitting, or part-time jobs
- shift their school focus from play-centered activities to school work
- begin to consider future careers and occupations
- look to peers and media for information and advice
- begin to develop a social conscience: becoming concerned about social issues such as pollution, climate change, and, even corruption
- begin to develop a sense of values and ethical behaviour: recognising the value of traits such as honesty, helpfulness, caring for others (ReCAPP, 2018).

### 1.2.3 Emotional and Behavioural Development

As adolescents begin to exercise their new reasoning skills, some of their behaviours may cause parents and other adults to be uncomfortable. However, it is normal for them to:

- Argue for the sake of arguing
- Jump to conclusions
- Be self-centred
- Constantly find fault in the adult's position
- Be overly dramatic (ReCAPP, 2018)

Santrock (2011) in drawing upon Erikson's life-span development theory, states that this stage in human development is a time of 'identity confusion'.

Prior to this stage, most elementary school children eagerly direct their energies toward mastering knowledge and intellectual skills. Santrock argues, though, it can be a time when some children develop a sense of 'inferiority, unproductiveness, and incompetence'. This carries over into the next developmental stage, adolescence. This stage is a time when they "try to find out who they are, what they are all about, and where they are going in life. They are confronted with many new roles and adult statuses (such as vocational and romantic) ... If they do not adequately explore different roles and fail to carve out a positive future path, they can remain confused about their identity." (Santrock, 2011, p. 74).

### 1.3 Implications for Learning a Second Language

Adolescents, as students, are under a lot of pressure. Yes, they are full-time students, and thus have a lot of time for learning, but, as second language learners, they have a double burden. Teenagers are expected to become literate in their own (national) language, proficient in basic core subjects, and, at the same time begin to learn a second language. For many adolescents these three expectations are a very large and sometimes daunting challenge. These are the expectations of *important others* such as parents and teachers, and, of course, the expectations of their community.

As discussed in the previous section, adolescent learners are at the same time also experiencing complex changes to their physical and endocrinal systems. Their bodies are changing, and their emotional response patterns are not stable (Santrock, 2011). The implication for teachers and for schools is that the task of teaching a second language to adolescents is more complex than teaching pre-adolescents. It calls for special approaches and the creation of special environments. Adolescent learners are a unique sub-group of second language learners because of the developmental changes they are experiencing. Their needs cannot be solved merely by *just doing things differently* from those which were used in the earlier years of their educational lives (Moore, Bean, Birdyshaw, & Rycik, 1999).

### 1.4 Adolescent Learners of English as a Second Language

Haynes and Zacarian (2010) point out that the term, 'English language learners', refers to students who are learning a language including English. Learners who are not fully literate in their first language may take as many as five or more years before becoming relatively proficient in academic studies. It is important to note that literacy in one's first language is an important underpinning to becoming literate in a second language.

Krashen (1982) argued that learning a second language requires three central elements: a comfortable learning environment with a low level of anxiety, meaningful classroom tasks that engage students in practicing listening, speaking, reading, and writing in the new language, and, engaging in tasks that are 'just a bit beyond' the students' current ability level.

Second language adolescent learners in countries like Thailand will have had some exposure to English. Many will have heard English spoken by tourists and most likely will have seen English in print – billboards, labels on imported products, signs in major shopping complexes and in bus and train terminals (Brooke, 2017).

Teachers, in working with teens, need to help their students by giving them essential tools such as 'decoding' skills – skills in phonics and practice in pronunciation. Also, teachers need to have a deliberate

plan for vocabulary development – not only for use in social interaction but more importantly for academic learning.

Academic language skill building requires an explicit focus on ‘key terms, words, idioms, and phrases that are needed to learn and engage in the subject matter’ not only in the language of instruction but in second language learning (Haynes & Zacarian, 2010).

## 2. Criteria for Selecting the approaches for inclusion in this review article

The author reviewed the publications of four groups of international providers of resources for teachers of English as a second language. They were (1) the British Council, the National Curriculum of the United Kingdom, Cambridge International Education, Oxford Education, Harvard Education, and the Centre for Language Studies of the National University of Singapore (CLS-NUS), (2) specialised journals, including the *Asian English Language Journal (AELJ)*, *The Reading Teacher*, and the *Rangsit Journal of Educational Studies*, (3) international publishing houses including MacMillan, Oxford University Press, Pearson International Education and Cambridge University Press, and (4) on-line support sites: Lexia Learning, ESOL Courses, Extensive Reading Foundation (ERF), and Fluent U.

Articles and papers, which discussed teaching approaches specific to modern-day adolescent learners of English as a second language, were reviewed. Two criteria were used to decide which of the approaches would be included in this present review article: (1) approaches that acknowledged the fact that today’s adolescents are already familiar with computers and the Internet, and (2) approaches that employed reading materials and learning activities that were international in scope, and, thus, more suitable for adolescents world-wide – not limited to learners in particular countries or regions.

Among the many approaches discussed by international providers of resources for teachers, seven, in the opinion of the author, have an appeal to adolescents in most countries of the world, and most of whom are already familiar with using the Internet for both personal and academic purposes. The list of approaches and primary sources are shown in the following table.

**Table 1** List of approaches Teaching English as a Second Language to Adolescent Learners

No.	Approach	Source
1	Decoding skills	National Curriculum of the UK; Cambridge International Education
2	Learning English through songs	the British Council; FluentU; Lexia Learning
3	Learning English through interactive on-line lessons and quizzes	British Council; ESOL courses; FluentU
4	Extensive reading (ER)	ERF; Harvard Education; MacMillan, Oxford University Press; Cambridge University Press
5	Dictation	CLS-NUS; ESOL Courses
6	Structured oral presentations	AELJ, British Council; the Reading Teacher
7	Topic-based curriculum	British Council

This review article describes each of the seven approaches, and provides information about free on-line resources which are available to teachers everywhere.

## 3. Strategies for teaching English as a second language to adolescents

No attempt has been made to prioritise the order in which these seven approaches are presented. *One is not more important than another. Each approach is important in itself.* Depending on the amount of time available for each lesson, the frequency of lessons, and the interest level of their students, teachers are encouraged to try out one or more of the seven approaches.

The first approach to be described is one which equips adolescents to become familiar with the structure of English sounds and the visual representation of those sounds. Both are important for improving students’ listening skills as well as students’ ability to read English text materials.

### 3.1 Decoding skills

Second-language learners of English should acquire at a very early stage those phonological skills that help them to decode the sounds of English. They also need frequent practice in associating the sounds of English with letters and combinations of letters, and, thus, make it possible to more easily *read* English text. Teachers of teenage learners should continue to provide opportunities whereby their decoding skills with continue to increase in order for them to comprehend more complex subject matter. The process by which students learn to associate letters and combination of letters *with the sounds of English* must be explicit and intensive. It must not be seen as a one-time process (Brooke, 2017).

One source for materials to assist teachers in helping their students improve their decoding skills is the National Curriculum of the United Kingdom (National Curriculum Assessment, 2016). The student materials are known as *Phonics Screening Check*, the first of which is known as 'Key Stage 1'. Most teenage learners may already have skills needed to pass this first screening check. However, teachers are well advised to ensure that this is the case. There are many sets available for downloading. A different set has been produced for each examination year, beginning with 2014. The materials consist of real words and 'fake', non-English words. Examples of non-English words are: *fot, keb, gan, ulp, poth, shan, dat, cag, vin, ept, and veen*.

These materials help learners to link sounds and letters in the order in which they occur in words, and also in naming and sounding the letters of the English alphabet. The materials also help promote speaking and listening skills, phonological awareness, and oral blending of sounds in common English words.

The use of these materials is a teacher-led activity. However, the National Curriculum website provides many other suggestions which are activity based. These include learning the lyrics of songs and the singing of songs. These can be adjusted according to the age and competency level of the students, as well as the songs with which student may already be familiar.

### 3.2 Learning English through songs

A second approach for strengthening English competency is through songs. There is considerable evidence that young people, especially, can learn a lot of English through listening to and singing songs. English songs contain a lot of useful vocabulary, phrases and expressions for the second-language learner (FluentU, 2018)

Listening to songs also help with pronunciation and understanding of the English language's rhythm and tone. Many of the words and sound patterns found in a song are repetitious and this is one reason why songs are more easily remembered. And, nowadays, most adolescents are familiar with the process of downloading songs, thus making it possible to take their favourite English songs wherever they go.

The creators of FluentU (2018) recommends sites such as *YouTube* and *Vimeo*. Both have large libraries of English music videos, in which the lyrics have English subtitles. Other sites are *Lyrics.com* and *Smart Lyrics.com*. These specialty sites have a feature that makes it possible for students to hover over a word which causes the video to pause and a pop-up provides a definition (in English) of the word.

### 3.3 Learning English through interactive on-line lessons and quizzes

A third approach takes advantage of adolescents' love for computers and their skill in the use of the Internet. Internet-based platforms are excellent sources of materials and activities to challenge even the most reluctant of teen-age second language learners.

One such is *ESOL Courses*, a free on-line learning platform. The company which maintains this site is *ESOL Courses Limited*. It is based in England. Hundreds of easy interactive listening lessons, reading exercises, and quizzes are available on this platform (ESOL Courses Limited, 2017).

This site, ESOL Courses' platform, makes it possible for teachers to choose from 5 levels: Beginners, Elementary, Pre-Intermediate, Intermediate, and Advanced. Thus, teachers have resources for all of the students in their class – even those whose competency level is still at or near the beginners' level.

There are many lesson topics. Among them are the following: The Alphabet, Classroom Words and Tasks, Numbers, Polite English Expressions, Weather, the Olympic Games, Lady Gaga, and Street Soccer, for example.

Among the various types of lessons are the following: Listening, Vocabulary, and Grammar; Speaking and Listening; Culture and People; Multiple Choice Quizzes; and Listening Comprehension practice.

### 3.4 Extensive reading

The fourth approach is that of Extensive Reading (ER). It is important to encourage and support adolescent learners in an extensive reading programme (ER), sometimes referred to free voluntary reading (FVR). The word 'free' is interpreted to mean students may choose what they want to read. And, 'voluntary' means that students are not compelled to read the materials. Both of these terms are important when including ER or FVR in second-language programmes for adolescent learners.

It is generally agreed that an extensive reading programme should be available both in class time as well as in free time. Maley (2008) pointed out that most second language learners will never 'meet the new language' enough times in typical classrooms in a typical academic year to actually begin learning the new language. Simply, there are not enough in-class hours. Every school day, second-language adolescent learners are also engaged in learning mathematics, science, and many other required subjects.

Maley cited evidence that by providing additional exposure to English through a carefully managed ER programme, adolescents will acquire, *mostly subconsciously*, knowledge about word groupings, spelling, new vocabulary, and punctuation necessary for both speaking and writing English.

Depending on the range of books titles available to students, ER can also expand general knowledge about interesting places in countries different from that of the readers themselves. According to Maley (2008), most teenagers possess a rather limited knowledge of the world. They have no time! Extensive reading can lead to new knowledge and understanding of places beyond the students' experience (Afflerbach, Pearson, & Paris, 2008).

ER can also improve 'self-esteem'. This is important for adolescents. Maley suggests that by reading a foreign language book, such as an English (easy) novel *for the first time*, can be a motivating factor to read a second English language book. There is little doubt that many teenagers will feel a sense of pride in such an accomplishment. And, their parents will be pleased, too.

Additionally, ER can develop and encourage learner autonomy – something many adolescents value. Maley (2009) pointed out that reading, by its very nature, is a private and is very much an individual activity. He states "It can be done anywhere, at any time of day. Readers can start and stop at will, and read at the speed with which they are comfortable. They can visualize and interpret what they read in their own way".

Teachers who wish to begin an ER programme for their English second-language students should first consider the following advice provided by Krashen (2009) some years ago.

- Arrange a time for reading every day; not just once a week; provide more time rather than less time
- Make sure plenty of books are available; and, downloadable websites are accessible to students
- Comic books are okay; magazines are okay; graded readers are okay
- Impose minimum censorship on what is read
- It is okay for students to read 'easy books' – even below their actual reading level
- It is okay for students to read 'hard' books' – often above their reading level
- Students don't have to finish every book they start to read (getting bored with a story is normal)
- Supplement a free reading programme with activities that serve to make reading more comprehensible and interesting, such as the teacher (or the more advanced students) reading aloud interesting stories in class, or reading aloud specific paragraphs that are particularly exciting, or that exemplify unusual word constructions
- Include story writing among the various projects students are asked to complete

However, there are some don'ts. Krishan (as cited in Maley, 2008) urged teachers to

- avoid using rewards for reading, because, they argue, reading is pleasurable and rewarding in and of itself;
- don't test students on what is read;

- do not require book reports; and, use zero or minimum accountability
- consider allowing eating and drinking while reading (if this is permitted by school authorities).

The injunction for teachers is to make reading an enjoyable experience, a distinctive departure from learning computational skills in mathematics, for example.

Finally, the link between extensive reading and improved English writing skills is neatly summarised by the famous writer, William Faulkner: “Read, read, read. Read everything—trash, classics, good and bad, and see how they (the writers) do it. Just like a carpenter who works as an apprentice and studies the master. Read! You’ll absorb it. Then write. If it is good, you’ll find out. If it’s not, throw it out the window” (Babauta, 2017).

Another quote which describes how another writer, Nicholas Sparks, has learned from his reading experiences:

“You must read, and read a lot. Did I say A LOT? I read over a hundred books a year and have done so since I was fifteen years old, and every book I’ve read has taught me something. I’ve learned that some authors are incredible at building suspense (see *The Firm* by John Grisham), I’ve read others that scare the jeepers out of me (see *The Shining* by Stephen King). Some authors can weave an incredible number of story lines into a single, coherent novel, with all parts coming together at the end that makes it impossible to stop turning the pages (see *The Sum of all Fears* by Tom Clancy), while other authors make me laugh out loud (see *Bloodsucking Fiends* by Christopher Moore). By reading a lot of novels in a variety of genres, and asking questions, it’s possible to learn how things are done—the mechanics of writing, so to speak—and which genres and authors excel in various areas.” (Babauta, 2017).

Both quotes reinforce the fact that there is a strong link between reading and writing. During the preschool and primary school years, children learn how written language can be used for purposes such as telling stories, and recording facts, how print is arranged on a page, and how letters and sounds combine to form words (Moore et al., 1999).

Thus, it is important that this experience be continued when children reach the adolescent stage. Adolescents, who are in the process of increasing their proficiency in English as a second language, need to continue exposure to more advanced reading experiences. This can be accomplished by using graded readers with vocabulary sentence constructions which are in line with their present level of proficiency.

For readers of this article who not familiar with ‘graded readers’ the Appendix, which can be found at the conclusion of this review article, provides a detailed explanation of this important resource for teachers of English as a second language. Included in the Appendix is a list of major publishers and suggested titles.

Teachers of mathematics, science, and social studies, will be interested to know that recent research has shown that students who enjoy reading for pleasure will also out-perform non-readers on content-specific achievement tests. A recent study, carried out with Grade XII Science students at a bilingual high school in Thailand, has provided data which revealed that FVR (free voluntary readers) students out-performed non-readers on the 2014 PISA (Programme of International Student Assessment) science test (Gumsa, 2016).

Gumsa observed that many students and teachers tend to be skeptical that something so pleasurable as reading stories could help students’ performance on science achievement tests. Her research revealed that readers in her Grade XII (final year) class obtained higher science test scores than her non-readers after an 8-week experimental period.

The next section of this paper describes a sixth approach. It outlines a method by which second-language adolescent learners can gain a variety of vicarious experiences and at the same time become more confident as listeners and as writers of English.

### 3.5 Dictation

Dictation, the fifth approach, is a technique for improving *aural* (or listening) comprehension. However, it has other benefits, too. Typically teachers would choose several paragraphs from a ‘graded’ reader at a level of difficulty appropriate to a majority of their students’ present level of competency in English, and which will hold their attention. This should take place, if possible, at least once every week to provide students with practice in writing what they hear (Rahimi, 2008).

Although the one giving the dictation would be the teacher, it could also be a student who has already developed sufficient skills in reading English aloud such that classmates can understand, and who would not be embarrassed to read to classmates. This technique gives second language learners practice also in the use of punctuation and capitalisation, as well as in using contextual clues to determine which word is the correct one (know/no; too/to; four/for; write/right, for example).

Rather than using a pen and paper, some students, particularly those with strong keyboarding skills, should be encouraged to record the dictation *using their computer notebook or tablet*. This, in itself, can be a motivator for certain adolescent learners. [The author of this review article has had considerable positive experiences with the use of this approach.]

### 3.6 Structured oral presentations

In order to provide student-centred activities, teachers should create a ‘final project’ in which teachers ask students to make an oral presentation using the ‘foreign’ language, in this case, English. Oral presentations are a major departure from their daily routines and inevitably creates considerable apprehension among students for obvious reasons.

As Wilson and Brooks (2014) point out, this ‘final project’ is very time consuming because it involves only one student at a time. And, thus takes away from the all-too-limited time available for second language learning. The number of hours in the weekly time-table for learning a second language is always limited, never enough!

Most teachers are aware of the importance of providing students with practice in interacting with others using the new language. However, the typical (final) oral presentation experience does not provide students with an adequate number of opportunities in which they can use the new language in an authentic context’ (King, 2013). As King points out, large class sizes and a mandated curriculum tend to focus more on grammatical accuracy than on communicative competence, thus making practice interacting in English virtually impossible.

A second criticism of individual oral presentations in what many students would describe as a ‘foreign language’ is for most teenage-students an awkward and uncomfortable experience. Most ‘hate’ standing in front of their peers, presenting a report or describing an experience in their own language – even more so in a foreign language (Wilson & Brooks, 2014)

What about the students who are not presenting? They become passive members of the audience, and become bored. They are bored not just because the topics being presented may be uninteresting to them, but also because they have difficulty understanding the ‘broken’ and the halting language of the embarrassed presenter (King, 2013).

The challenge, especially for teachers of adolescents studying a second language, is to devise strategies that can overcome some of these disadvantages. In their article, *Teaching Presentation: Improving Oral Output with More Structure*, Wilson and Brooks (2014) describe a different genre of oral presentations, namely, the ‘poster’ presentation. They argue that poster presentations can benefit both the students as well as their teachers.

A poster presentation, which is the sixth approach, starts with the learners working individually, or in pairs, or in groups of three, on a topic of interest to them, and one which has received their teacher’s approval. This latter point is important. It assures that the students’ proposed topic is, in fact, researchable. Also, the topic should have some educational value, that is, the topic should not be a frivolous one.

The term ‘working’ refers to several key tasks. Undertaking Internet research to gather relevant facts which could be of interest to their classmates (or a wider audience) is the first of the key tasks. And, second key task is to determine which of them would lend themselves more easily to bullet-type key phrases. The

third task is perhaps even more difficult, that of drafting the phrases with the use of a word processor and *spellcheck*, to ensure that the bullet-type phrases are grammatically correct and no misspellings. These key tasks will require some experience in using the Internet (for academic research purposes), as well as basic reading comprehension levels in order to determine what are some key concepts and phrases. Hopefully, in the case of group work, one or more members in each group will have had similar experiences in earlier second-language projects (Moore et al., 1999).

Visuals, too, are important. There are many learning styles: some students possess a learning preference for visuals, for example. The English idiom 'A picture is worth a thousand words' suggests that a single image can communicate meaning or essence more effectively than a written or verbal description. Thus, the selection of appropriate images or visuals becomes an important element in the design of academic posters, as well as the actual physical task of designing and constructing the poster itself.

It is here where those students who are perhaps less confident in researching and writing English can excel. They, too, will have a 'greater stake in the presentation'. And, in addition, poster making can improve group dynamics. Even the students who were known as weaker students in terms of their English skills are now able to make an important contribution to the presentation (Wilson & Brooks, 2014, p. 515).

There are many possible scenarios for the actual presentations. Which presentation scenarios are the most suitable depends on the size of the class, the facilities that are available, and timetable flexibility.

One possible scenario is to schedule the presentations on a particular day, in the classroom or in a larger space, where half of the class stand by their posters taking turns explaining and answering questions to the other half of the class, as they move about from one poster to another poster. Then, after a short recess, during which students enjoy some snacks and drinks, the other half of the class presents their posters to the first half.

Another scenario, as described by Wilson and Brookes (2014), is to invite other second language teachers and their classes to come to a 'showing'.

Poster presentations, when properly managed, can provide students with a level of autonomy in the performance of a variety of second language learning experiences, in a relatively short time-frame. Students will feel comfortable about making short presentations to their peers, in such a project, and, in turn the experience will strengthen their level of confidence in using the new language.

There is yet another benefit. Poster presentations provide little or no time for students to feel bored because the presentations require active participation on the part of all students. And *all members* of a class can benefit from both giving and listening to oral (and visual) presentations. Not the least of the many benefits, poster presentations also help cater to different learning styles (Wilson & Brookes, 2014).

### 3.7 Topic-based curriculum - Classrooms without textbooks

In reviewing the six previously described approaches presented in this research report, readers may notice that there has been no mention of standard-type textbooks. The emphasis has been on activities that call for 'learning by doing', rather than those that are primarily teacher-led. This reflects evidence that 'students learn best when the curriculum (and classroom materials) [are] socially relevant and when students are given opportunities to examine their (own) world . . . ' (Hayes & Zacarian, 2010).

Textbooks which were designed for second language learners in the United Kingdom or for Chinese exchange students studying in Canada, for example, may not be the most suitable for second language learners in Asian countries. Those textbooks are quite appropriate for those for whom they were designed, but not necessarily for students studying English as a second language in their own country. For example, the place names are not familiar. The faces in the photos don't look familiar. Their names are unusual. The activities being described are not ones in which the students have participated themselves. In other words, the materials in such textbooks are not only written in a 'foreign language', but the stories appear to be meant for students elsewhere.

A topic-based syllabus, the seventh approach, includes reading materials and topics relevant to the students' own culture, and photos that show the ethnic mix in their home country, for example. Teachers in Thailand are fortunate to have two English daily newspapers, the *Bangkok Post* and *The Nation*. Both of these dailies are of international quality and provide relevant and timely stories and photos on a wide range of topics. Using a topic-based syllabus as a framework can provide a greater stimulus for language learning



for adolescent learners because the context can be familiar and thus more relevant to the learners (British Council, 2011).

By starting with a topic of interest and then discussing or explaining an issue or an opinion, students will find out what they already know, what they do not know, and what they can become interested in knowing. These, in turn, can provide further objectives, whether they are grammatical, lexical or pronunciation-based, and on which the teacher (and the students) can build the various sections of the course.

Teachers who have the background and experience will know that the key to developing a successful topic-based course will require first a discussion with students as to their interests and motivations. For example, inviting the students to express their likes and dislikes (food, fashion, movies, sports, TV programmes, music), and, what's going on in the nation. Another popular theme for adolescents might centre on what are their future hopes and dreams.

Students with greater fluency, and experience in the use of English, should be encouraged to help classmates who are less competent, by translating their likes and dislikes in such a discussion session.

The most successful topics will be those for which there are varying and differing opinions. The list produced from these early discussions can give teachers clues as to which course books or types of articles from English language daily newspapers may prove to be helpful print sources for use in future lessons.

Although it will not be possible to take into account all the interests expressed by students, the British Council (2011) English language teaching experts recommend that teachers plan to select three or four to be covered within a specific time-frame. Then, together with the students, discuss what might be their learning objectives.

For teenage learners of English as a second language, these may include:

- to learn specialised vocabulary to better understand relevant print material and to pronounce new words both singly and in a phrase or sentence
- to keep a personal diary of new words and phrases, including translations using their first language
- to gain experience in identifying key ideas from Internet-based articles and reports found in local English language newspapers and magazines
- to practice preparing short summaries and/or reports using bullet points

Remedial grammar and error correction are two topics that should be discussed with second-language learners. Some students might prefer to be corrected 'on the spot'; others may prefer a less public method. Adolescent learners are perhaps more sensitive than younger-age learners in how they prefer to be corrected.

Teachers should keep a list somewhere visible to the whole class, of the more common errors which students make and from time to time review these. A few examples include upper case letters for proper nouns; the importance of commas when using words such as 'too'; and, the correct use of italics. Again, the exercises found in language learning text books can be an excellent source for the busy teacher.

Teachers are encouraged to use a wide variety of sources and resources. To illustrate, the British Council (2011) provided a list in the case where students have agreed that one of their interests is 'cinema'.

As a starting point it is suggested that teachers find out which films they really enjoy and why. Then follow up using the Internet and local English language newspapers to research films currently showing in cinemas and observe the language used by the advertisers in describing those films.

For an extended focus, *YouTube*, for example, can be used to watch some of the earlier award-winning films that are examples of the various popular genres which were identified by class members.

This instructional technique can introduce students to distinguishing the different accents of English speakers, and develop an increasing awareness of differences in culture, fashion, and architecture in the various historical periods portrayed in the films.

To conclude, Jennifer Goodman of the British Council, acknowledges that teaching without a course book can create extra work, but, it can 'keep your classes fresh and interesting for your students . . . definitely give it a try from time to time' (British Council, 2011).

#### 4. Concluding Remarks

This review article has attempted to bring together a variety of pathways, or approaches, to aid teachers in their on-going challenge of ensuring greater success for adolescent second-language learners of English – approaches that have been recommended by internationally reputed experts in second language learning, major publishers of support materials, and on-line resource providers – all of whom are committed to assist teachers of English as a second language.

Adolescents are a unique to group of second language learners. Many of which are reluctant learners of a second language for a variety of reasons discussed in this review article.

This author believes it is important for second-language teachers of English to make use of the many resources that are available on line – resources that can be adapted to the needs and interests of computer literate Thai adolescent learners. This paper has described ideas for teachers of English as a second language as to how best to help adolescents become *engaged learners*. The term ‘engaged learners’ refers to students who have been motivated to increase their attention and focus on second language learning through meaningful student-centred activities.

Heads of departments of content subjects have a role, too. Second language learning needs the support of all teachers – mathematics, science, art, music, and social studies. Professional teachers should support the learning of languages, both first and second. It needs the support not just teachers of languages!

Finally, the best schools are never content with the *status-quo*. The best schools, in the view of this author, are always searching for ways to improve the success rate of their students. This is especially important for adolescent students studying English as a second language. Acquiring competencies in English is more important these days than ever before.

High school graduates who have not acquired competencies in a second language, such as English, are certain to be among the more disadvantaged in this present era of internationalization. (Wiriyachitro, 2002)

#### 5. Appendix: Graded readers

This Appendix is intended to provide detailed information about ‘Graded Readers’ for those who are not very familiar with this important resource for teachers and learners of English as a second language. Graded readers are books that have been created for second language learners. They are simplified versions of famous novels or original stories. The simplification is with respect to vocabulary and syntax levels in order to make the content more accessible to second-language learners at various levels of skill development.

Major publishers of English graded readers include Cambridge University Press, Macmillan, McGraw-Hill Asia, Oxford University Press, and Pearson English Readers, among others. (Extensive Reading Foundation, 2016). Publishers of graded readers specify the level of difficulty, such as Level 1, Level 2, and so on. Others specify ‘Beginner’, ‘Elementary’, ‘Intermediate’, ‘Upper Intermediate’, and ‘Advanced’, for example.

Graded readers are available in either British or American English. [Note: the Thai Ministry of Foreign Affairs, as well as ASEAN (Association of Southeast Asian Nations) use British English. Thus, it is recommended that teachers of English in Thailand should recommend graded readers which use British English, especially for students whose career aspirations might include working in the civil service. [Teachers in other countries who wish to use graded readers for their students should take into account which spelling system is the one which is used by their governments.]

Some publishers of graded readers are now including a CD-ROM. Learners can then hear the story being narrated by professional speakers of English. Also, several publishers have begun to make available some graded readers *on line*, for example, Penguin. See <http://www.librarything.com/series/Penguin+Readers/>.

What follows are a sample of titles from one publisher, Pearson English Readers. This selection serves to illustrate the vast range of well-known English stories which have been developed for readers at various levels of English proficiency. The content of the graded readers in the following list are marketed as being suitable for adolescents.

- Level 1: A Christmas Carol, Missing Coins, and 20,000 Leagues under the Sea
- Level 2: King Arthur and the Knights of the Round Table, The Railway Children, Three Short Stories of Sherlock Holmes
- Level 3: Dr. Jekyll and Mr. Hyde
- Level 4: Diary of a Young Girl
- Level 5: Round the World in Eighty Days
- Level 6: Great Expectations and Journey to the Centre of the Earth (Pearson Publishing, 2019)

Contemporary themes exist in abundance, too. There are literally thousands of such readers. Each are set in various countries around the world. Included here are some examples of Cambridge readers for Levels 1, 2 and 4 that are ideally suitable for teenagers:

- Level 1: Help! About a teen and an unusual computer that has surprising skills. Inspector Logan: A story about a missing woman and a dead body, and Inspector Jenny Logan and her new job in Scotland.
- Level 2: Within High Walls. Nancy is a security guard at a refugee detention centre. She falls in love with one of the detainees and her world changes completely.
- Level 4: Berlin Express. A 20-year old Japanese student when he travels on holiday to Berlin meets a sinister looking man who later turns out to be an assassin who has been hired to kill an international VIP person.

It is clear that adolescents *can* advance their language proficiency levels through extensive reading. However the stories must be at a competency level which does not require a dictionary, and which can captivate the reader's interest. (Shanahan & Shanahan, 2008).

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## Evaluating the Evaluation: Concerns about Student Evaluation of Teaching

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### Abstract

It is believed that students' perception of how they are taught is essential in evaluating teachers for faculty development and personnel decision-making purposes. Thus, student evaluation of teaching, or SET, is a staple in educational institutions, especially in colleges and universities. There are, however, questions about the reliability and fairness of such practice. Many factors are perceived to influence student ratings of their teachers' performance, and grading is a persistent concern. As results of such evaluations are commonly used for administrative decisions, such as for faculty promotions or salary adjustments, teachers are tempted to modify their behavior to obtain favorable ratings. It is therefore suggested that student evaluation of teaching be handled with care in terms of formulation and administration, and be used in conjunction with other methods in order to have a valid and reliable evaluation of teachers' performance.

**Keywords:** *teacher evaluation, student evaluation of teaching, evaluation of teaching performance, SET*

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### 1. Introduction

Studies about school effectiveness have shown that the most influential factor in the achievement of learners is the teaching quality, well ahead of curriculum, evaluation, and educational management (Hargreaves, 2014). No wonder then that student evaluation of teaching, or SET, is a common feature in tertiary institutions (Biggs & Tang, 2007).

As students are considered primary stakeholders in colleges and universities, their evaluation of how they are taught is seen as an important source of information in directing teacher development and decision-making involving teachers. Ideally, SET should be conducted to improve teaching quality. SET can help teachers understand how students perceive their teaching (Hattie, 2009), and that understanding can help them make adjustments in their teaching accordingly. In reality, however, results of SET are most of the time used for personnel decision-making in terms of salary, tenure, contract renewal, promotions, and awards (Biggs & Tang, 2007).

The evaluation usually comes in the form of a survey using a questionnaire administered either in person or online. Usually, SET instruments are written and formatted in a way that can be used in any department in order to compare teachers using a quantitative scale, for example from 1 to 5, with 1 as highly unsatisfactory and 5 as highly satisfactory. This quantitative approach is common because it offers "administrative convenience" (Biggs & Tang, 2007), especially in institutions with large teacher populations. Individual student responses can be manually keyed in computers or answer sheets can be fed in computerized readers. Quantitative results can be then easily computed using readily available statistical programs.

While SET has been helpful for administrators to make personnel decisions, its formative influence on teaching quality still remains to be seen. In Marsh's study (2007) of 195 teachers in over 13 years, results of SET have shown no significant impact on teacher development. It is rather strange, if not sad, that the opinion of those who are the direct recipients of the act of teaching seems to be considered so lightly, if considered at all. Hattie (2009) noted that SET appears useless for teachers because teachers do not learn anything significant from these supposedly valuable evaluations. This situation begs the question: Why not?

The reason for this seeming lack of teacher development as a result of SET is probably due to contentious issues about the reliability and validity of such an evaluation method. It is fair to say that teachers have the right not to follow what they believe is questionable. What can they learn from an evaluation that they think is not valid and reliable?

If you look at the more common reality of the use of SET, i.e. personnel decision-making, teachers' concerns regarding the reliability and validity of this approach put the whole teacher evaluation system in question.

## 2. Concerns about SET

Several studies have indicated that SET is reliable and valid (De Jong & Westershof, 2001; Greenwald, 1997; Marsh, 2007; Marsh & Roche, 1997; Overall & Marsh, 1980). However, it has not stopped many educators and researchers to question such claims.

According to Stark and Freishtat (2014) and Braga, Paccagnella, and Pellizzari (2014), SET ratings do not truly determine teaching effectiveness as they are significantly related to factors that have nothing to do with teaching, such as race, gender, physical traits, etc. Crumley and Fliedner (2002) noted that SET questionnaires focus on how students perceive teachers rather than on student learning or achievement. Biggs and Tang (2007) also claimed that SET seems to assess teacher "charisma" as they are not designed to measure teaching performance based on changes in student learning but rather evaluate teacher characteristics. Kornell and Hausman (2016) also posited that students may not be fair judges of teaching effectiveness as they have the tendency to focus on teachers' traits. Crumley and Fliedner (2002) contended that such evaluation design can be prone to distortion as teachers may alter their behavior so as to influence student perceptions. Pounder (2007) believed that teachers may be tempted to influence SET in different ways since the results can have significant impacts on their tenure, salary, promotions, among others.

Biggs and Tang (2007) also pointed out that SET questionnaires contain items that assume that the mode of teaching of all courses is lecture, with items like "speak clearly" or "hands out clear lecture notes". This assumption puts teachers who use different modes of teaching at a disadvantage.

Furthermore, there are factors that have been identified to have an influence on SET results. Koh and Tan (1997) noted that a smaller class size, a large number of evaluation answers, conducting the evaluation at the later part of the week, and higher-level subjects are all related to good SET ratings. The investigation of Badri, Abdualla, Kamali, and Dodeen (2006) revealed that expected and actual grades, course level, class size, course timing, student gender, and course subject have significant effects on SET results. Heckert, Latier, Ringwald, and Silvey's (2006) study also shows students' interest in course content, expected grades, satisfaction with the time of day (of the class) and gender of the teacher significantly relate to teaching performance. Boring, Ottoboni, and Stark (2016) found that SET ratings are influenced by students' grade expectations and instructors' gender, i.e. male instructors are rated more highly than female ones. Aleamoni and Hexner (1980) on the other hand contended that SET scores can be affected by instructions on the evaluation. They noted that students gave high ratings to teachers when told that the evaluation would be for personnel purposes, e.g. tenure or salary decisions. However, when told that the evaluation would be for teachers' personal use, e.g. course improvement, the students gave less favorable ratings.

### 2.1 SET and Grades

The most consistent concern raised by educators, which is supported by research, is the relationship between SET results and student grades. Although Marsh and Roche (1997, 2000) assured that grades do not significantly influence students' evaluations of their teachers, a number of studies claim otherwise. Greenwald and Gilmore (1997) asserted that the positive relationship between SET scores and expected grades has been proven by experimental studies that involved grade manipulation. The investigations of Abrami, Dickens, Perry, and Leventhal (1980); Addison, Best, and Warrington (2006); Badri et al. (2006); Ducette and Kenney (1982); Griffin, Hilton, Plummer, and Barret (2014); Marsh and Roche (1997); McKeachi (1997) show that grades have a significant positive relationship with SET ratings, i.e. teachers who give high grades receive good ratings.

When Marsh and Roche (1997) investigated student evaluation and their grades, they found that students obtained better grades from those considered as "good" teachers than from those "poor" ones. They posited that the high grades could indicate that students really learned well, or that those grades were reflective of lenient grading. D'Apollonia and Abrami (1997) shared the same view: students may believe that a teacher is effective when they do well in exams, or they may give high evaluations as a reward to teachers who give them good grades.

Marsh (1983); Marsh and Roche (1997) offered three explanations for SET ratings and grade relationship. First, grades really reflect what students learn, i.e. good grades mean that students have learned well. Second, the relationship can be deceiving due to the influence of some factors such as poor interest in a course, previous learning experience, class size and level of the course. Finally, it is the leniency, not the grades, that affects SET ratings, which means teachers who grade students more than they deserve are appreciated by students with better-than-deserved SET ratings.

Greenwald and Gilmore (1997) theorized the following to explain the relationship between grades and SET ratings: good grades and high ratings are results of effective teaching; the over-all learning motivation of students affects their grades and their evaluation of their teachers; the motivation of students towards specific courses affect their grades and their evaluation; students believe that their grades reflect the quality of the course and their own academic capability; and, students' good ratings are an expression of gratitude for good grades. They also put forward the attribution theory to explain why some teachers receive low SET ratings: when students get high grades, they credit it as their personal achievement, but they put the blame on their teachers when they receive poor grades. They contend, however, that students' evaluation of their teachers is mostly based on not what they have achieved or learned from them.

Griffin et al. (2014) seemed to back up Marsh and Roche's (1997, 2000) contention. Their research findings indicate that students' grades are moderately correlated to SET ratings. However, the correlation had a large variance and was not applicable to individual teachers and courses.

However, several studies point to the influence of grading on SET ratings. Ducette and Kenney (1982) found that teachers who give good grades receive higher SET ratings than those who give lower grades. Moreover, they noted that expected grades are significantly related to course difficulty, course effectiveness, and teacher effectiveness. These findings indicate that students give better SET scores to teachers from whom they expect to get good grades with the belief that those teachers are more effective than others. On the other hand, students who believe that they would get low grades tend to think that the course is too hard and too demanding. But instead of taking responsibility, they attribute their expectation of poor grades to the course and the teacher, which means evaluating the course and the respective teacher poorly, too.

Selsby and Sterle (2015) found that students' perceived grades and their perceived variance between what they expected at the beginning and at the end of a course influence their evaluation of their teachers significantly. Those who expected high grades and perceived little or no difference in their final grades rate their teachers better than those who perceived their final grades to be much lower than their expected grades at the onset of the course.

Abrami et al.'s (1980) experiments show that teachers may obtain varying evaluation scores if they use varying standards in giving grades.

Such correlational studies indicating the influence of grades on SET ratings are further supported by surveys. Al-Issa and Sulieman (2007) noted that many of the students they surveyed admitted that they rated their teachers based on their expected grades in those teachers' courses. Crumbley, Henry, and Kratchman's (2001) survey also revealed that about 4 out of 10 students tried to find out the grading behavior of teachers to help them decide which teacher to study with, i.e. choosing the lenient ones.

## 2.2 SET and Teacher Behavior

Because of the fear that students will give them poor SET ratings, teachers can be tempted to alter their teaching and grading methods to gain favorable evaluations (Crumbley et al., 2001). Such action is, of course, understandable due to the high stakes of SETs in terms of promotion, tenure, or salary adjustment.

Redding (1998) noted that many teachers provide easy courses and administer easy tests so as to be rated favorably by their students. Thus, Redding believes that there are teachers who inflate grades to get good SET ratings and also to avoid student complaints about grades.

Crumbley and Fliedner (2002) believed that teachers have the power to influence students' evaluation of their performance. In their survey, about 40% of school administrators responded that they were aware of teachers who behaved in such a way that would get them high SET ratings. The administrators knew that those teachers graded leniently and gave easy coursework.



To influence student evaluation, teachers actually may not have to give the final grade. They can simply make students believe that they will get high grades. Expecting high grades can cause students to give their teachers high SET ratings (McPherson, 2006).

### 3. So What Should Be Done?

SET can be a valuable tool in teacher evaluation, but because of various biasing factors, they have to be used with care. Abrami, D'Apollonia, and Cohen (1990) ; Stark and Freishtat (2014) warned school administrators to be cautious in interpreting and generalizing SET results. Biggs and Tang (2007) did not warn only about SET result interpretation but also about the process of administering and formulating SET questionnaires. They believed that SET should be organized by departments and not by faculty or school administration. Moreover, they recommended improvements in questionnaires by making sure that they are constructed in a way that supports “constructive alignment”, for example,

- whether students are clear about the intended learning outcomes,
- what standards they have to reach to attain the various grades, and
- that the teaching-learning activities in their experience really help them to achieve their intended learning outcomes.

Teacher evaluation, whether for the purpose of faculty development or personnel decision-making, will always be questioned if it is founded only on SET. To make the evaluation more reliable and fair, it should not be based solely on SET. Emery, Kramer, and Tian (2003); Koh and Tan (2007) ; Kornell and Hausman (2016) ; Stark and Freishtat (2014); Toch (2008) recommended that evaluators gather data for teacher evaluation from various sources. Data from such sources can then be triangulated to obtain a clearer picture of a teacher's performance.

Biggs and Tang (2007) believed that teachers should be given an opportunity to address the criteria set for teacher evaluation. This can be done by compiling a portfolio that should contain a teacher's teaching philosophy with a discussion on how such philosophy is implemented in teaching-learning situations. Lesson plans, materials, samples of student work, and evaluations in respective courses should be included in the portfolio to serve as proof. Evaluators can then analyze the portfolio to determine a teacher's performance based on those teacher evaluation criteria.

Aside from teaching portfolios, Emery et al (2003) recommended the use of students' achievements and peer evaluations. Centra (1987); Mckeachie (1997); Stevens (1987) suggested the following as sources of teacher evaluation information: class observation, portfolios, student interviews, and videotaping of classes. Mckeachie (1997) further suggested the use of written comments from students and teachers' self-evaluation. Koh and Tan (2007) proposed supplemental teacher evaluation tools such as class observation by internal and/or external evaluators, portfolio analysis, teacher self-evaluation, graduate and peer evaluation, and assessment of student achievement. Kornell and Hausman (2016) also believed that evaluations by “expert teachers” and an objective assessment of what students have really learned after finishing a particular subject should be employed together with SET to truly determine teaching effectiveness.

### 4. Conclusion

Student evaluation of teaching is considered an integral and vital part of the teacher evaluation process in tertiary education. SET rating results may provide useful information for teacher development and for personnel decision. However, empirical studies have continued to question its value that Spooren, Brockx, and Mortelmans (2013) meta-evaluation concludes SET is “fragile”.

Questions about the credibility of SET results obviously devalue SET in terms of teacher development. How can teachers be guided on what and how to improve if the evaluation is dubious? What's more, how can teachers be encouraged to improve if they do not trust the evaluation?

Undeniably, personnel decision-making based on SET is definitely impacted by SET's fragility as well. Perceptions of bias and incompetence on the part of administrators are inevitable. Furthermore, the culture of SET as a popularity contest can surely tempt even the most idealistic teachers to work on their popularity as well in order to get favorable personnel decisions.

Questions and concerns about SET definitely point to one thing: SET should not be the sole basis for faculty development and personnel decision-making. Yes, SET is a valuable tool in teacher evaluation. However, school administrators should exercise caution in using SET ratings when making decisions regarding tenure, promotions, and salary, as well as when implementing faculty development actions. Moreover, they should not depend only on SET; they should make use of other methods in collecting information about teachers' performance. Class observations, alumni and peer evaluation, video-recording of classes, self-evaluation, student interviews and written comments, student achievement, and portfolios can provide more data about teaching performance. Triangulation of data from such sources, including SET, can produce fair and reliable teacher evaluation.

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## Community Mobilization Methods for School Development in a Rural Area, Cambodia

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### Abstract

The study explores how primary schools in the remote area in Cambodia mobilized communities for school development, and the leadership roles of school administrators and School Support Committee leaders in mobilizing community participation. Qualitative research method was employed. The study found two approaches of community resource mobilization including community-led mobilization and delegated-resource mobilization. Leadership roles of school administrators and School Support Committee leaders were crucial in implementing community mobilization. The study suggested further research on community participation in children's learning and power dynamic of school administrators and school support committee leaders in community mobilization.

**Keywords:** *community, resource, mobilization, leadership*

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### 1. Background

Community and civil society are key partners of government for education development. Government alone cannot achieve the educational aims without the participation of stakeholders. A developing country like Cambodia needs the participation and resource contribution from community and civil society for school development. Educational institutions and schools have different potential sources of income and funding in addition to the government funding, called Planned Budget (PB), which is delivered to the school annually (MoEYS, 2015). The common sources of income that the schools have include community, government fund, Non-Governmental Organizations (NGOs), school generating income, philanthropists and private donors outside the countries. The Royal Government of Cambodia calls for participation from different partners in education. Educational institutions welcome all kinds of support from the relevant stakeholders such as the public and private sectors, national and international organizations, non-governmental organizations, and communities (RGC, 2014). This encourages the involvement of these relevant stakeholders in the education process in such areas as planning, implementing, monitoring and evaluation.

As indicated in Article 44 of the Constitution of the Kingdom of Cambodia, education administrators at all levels are strongly encouraged to mobilize resources for education development (RGC, 2008). Relevant stakeholders such as individuals, faith groups, families, communities, national and international organizations, non-governmental organizations, and public and private institutes, all have the right to participate and to provide resources in any forms such as financial, materials, technical, advice, labor and so on. Educational administrators have the right to mobilize legal resources from all sources in order to develop educational institutions or schools. The school support committee (SSC) leaders can mobilize resources in their communities to complement the school resources and the budget received from the government. However, the contribution (financial and materials) from communities is voluntary (RGC, 2008). The school administrators mobilize resource to complement budget deficiency, the budget to use for the school development. As such, the school calls for supports whenever they are in financial needs. To pool resource contribution, the schools need capacity to pool local resources for developing their schools.

### 2. Literature Review

Prior to explore the process of community mobilization, it is important to unpack relevant key concepts include community, community participation and community mobilization. Community is broadly defined as a geographical area that consists of people who have social interaction and have one or more commonalities (DeRienzo, 2008). Not only is a place referred to by 'community', but also people and

institutions in the community (DeFilippis & Susan, 2008). In addition to the mentioned definition, (Diagne et al., 2006) UNESCO (2016) suggests certain criteria that bring people together as community including space, culture and history, property, race, religion, language, gender, political, age and interest. According to DeFilippis and Susan (2008), community is inclusive of people and places as people, places, and institutions that we encounter everyday life provide opportunities and support for our activities, as well as barriers and constraints. In this article 'community' refers to a fairly diverse groups of education related stakeholders both formal and informal groups who have a collective purpose in education. This includes parents, local authorities, civil societies, community based organizations, NGOs, business people, microfinance institution, youth, churches, Buddhist pagodas, and other private institutions. These people and institutions which are visible in the local community may or may not have a chance to be involved in education in school, at home or in the community.

The Cambodian community in the past had strong connections with Buddhist pagodas as the social, cultural and religious centre of the community (Pellini, 2005). This behaviour is still practiced in the Cambodia society of the present. The Cambodian community, according to Clayton (1995) and Pellini (2005), is socially hierarchical in which elderly are highly respected. Village leaders, laypeople, rich families and community members who are literate are reported as community leaders (Pellini, 2005). Take School Support Committee (SSC) as an example. The SSC's members compose of senior citizens, local authorities and former teachers as it is perceived to have strong voice and influence on development projects. The SSC is an organization to represent community members and parents in the schools (MoEYS, 2012). This organization support the education to ensure a smooth, transparent, accountable and effective education process. They are involved in formulating, implementing and monitoring the school plans; collecting and enrolling children in school; monitoring student's learning; generating revenue and mobilizing funds. The SSC is also involved in constructing, repairing and maintaining schools; sharing experience and life skills in the class; safeguarding properties inside and outside the schools; strengthening and expanding the capacity and awareness of school development. In addition, the formation of this group aims to help to protect and develop the schools, as well as increase cooperation and facilitation among communities. The members of the committee come from different stakeholder groups such as local authorities, monks, school directors, the elderly, pagoda committees, parents, laymen, education officials and private donors (MoEYS, 2012). These people are volunteers, without any incentive of being paid. The honorary chairperson should be a local authority or head monk and the advisor should be a school director or retired education official. The chairperson is usually a retired education official, a pagoda committee member, a layman, a private donor or a parent. The deputy chairperson and committee members could be any of the people mentioned above.

Community participation is the circumstances in which individuals in the community are involved in the development processes in all levels of society through active contribution and for the purpose of sharing the benefits from development (Desai, 1995). Community members participate in sharing responsibilities over development initiatives, decisions and resources which affect them (Nelson and Wright, 1995, p5). They (community members) also participate in development projects/programs through their representatives or directly participate in development activities (Arnstein, 1969; Crocker, 2007; Pretty et al., 1995). In other words, community participation in the development refers to the process of including local people, families, local authorities, community leaders, development workers, and development professionals in the process of identifying problems, the planning, implementation, monitoring and evaluation of the development project in the community.

Community mobilization is a capacity building process through which community individuals, groups or organizations plan, carry out and evaluate activities on a participatory and sustained basis for their development, either on their own initiative or stimulated by others (Corps, 2009). Community mobilization has been broadly defined as the organization and activation of a community to address local problems (Shults et al., 2009). Community mobilization is very important for the success of any intervention/programme as it helps in creating demand for interventions; increasing the effectiveness and efficiency of interventions; contributing additional resources to the response; reaching the most valuable; addressing the underlying issues affecting education; and increasing community ownership and sustainability (Nwabueze, 2017). Community mobilization allows people in the community to identify needs and promote community interests; promote good leadership and democratic decision making; identify specific groups for undertaking specific

problems; identify all the available resources in the community; and plan the best use of the available resources (Diagne, et al., 2006). Key players, mobilizers are those who mobilize and get things moving. They are catalysts that create an atmosphere to achieve a common goal of importance to the community by bringing the people together; building trust; encouraging participation; facilitating discussion and decision making; helping things to run smoothly; and facilitating in the community mobilization process.

The community mobilization approach is used in a wide range of development projects. It helps to enhance the ownership and the sustainability of development (Mercy Corps, 2009). This is because the approach engages different stakeholders in project implementation. According to a Guide to Community Mobilization Programming of Mercy Corps (2009), community mobilization framework has several stages including pre-positioning, assessment and planning, structures and agreements, leadership and capacity building, co-monitoring and learning, re-positioning, and hand over. Each stage has different level of participation from various stakeholders.

1. *Assessment* – an initial stage to get to know communities, partners and the determination of the context before starting the project.
2. *Community Selection and Working Group Formation* – selecting community and representatives to participate in the project.
3. *Action Planning* – brainstorming options and drafting the implementation processes of potential community projects.
4. *Project Selection and Verification* – the options prepared through the action planning process are presented for selection.
5. *Project Formulation and agreement* – selected project is planned and agreed by communities, working groups and all partners.
6. *Project Implementation* – Communities mobilize their own resources and lead implementation, monitoring and evaluation.
7. *Project Completion and Celebration* – Project completion is celebrated by project implementers, community and partners.
8. *Repositioning or Preparation for the Next Phase* – the project has possibility to be redesign for further development.
9. *Handover* – Working group and other relevant actors implement the exit strategy and hand over to partners and ‘community’.

Adopting community mobilization in project management enhance the success of sustainable development. Project management cycle consists of five main stages, in which community mobilization approach can be integrated, including project initiation, project planning, project execution, project monitoring and evaluation, and project closure (Kerzner, 2017). First, project initiation is an early stage of the project where potential actions are identified to respond to the development needs. Project initiation involves development need identification followed by the assessment of local resource, human resource and other factors to achieve development project. Partnership is also assessed for future collaboration in this stage. The second stage, project planning, involves key actions including budgeting, staffing, action planning, scheduling, and planning for project monitoring and evaluation. The third stage, project execution, is a project implementation stage for which resources are utilized within a defined timeframe to achieve project objectives. It also involves the effort of staff in project implementation for efficiency and effectiveness of the project implementation. Fourth, project monitoring and control, the project progress is tracked based on the defined indicators of expected outcomes. The progress is measured against the predicted outcomes. The monitoring information is analyzed to see the impacts of the project to inform management decision. Finally, project closure stage, the project achievement is verified and concluded. Exit strategies are also applied in which the project is handed over to community partners. The stage also involves financial and administrative closure.

However, community mobilizers require knowledge of community mobilization process and a thorough understanding of its principles; and understanding of the community, its ethics and sensitivities. He/she needs some sets of skills including good communication skill, facilitation skill, and ability to make

community participate in the decision making (Kim-Ju, Mark, Cohen, Garcia-Santiago, & Nguyen, 2008). He/she also should possess appropriate attitudes such as willingness to examine a situation, respect for all community members, non-judgemental, a belief in community capacity to take effective action.

The concept of community participation and mobilization is drawn from the theory developed by different developing context. The steps and process of community mobilization have been applied in those developing countries. Less has been done in the selected research area. This paper is academically developed to determine community mobilization method for education development in a rural area in Cambodia.

### 3. Objectives

- To explore the process of community mobilization for school development in the remote schools in Cambodia.
- To examine the leadership roles of the schools and community leaders in the community mobilization for school development.

### 4. Methodology

This study employed a case study method to explore how community mobilization was applied by the remote schools. As suggested by Yin (2011), case study method is suitable with the “how” question and for examining organizations, individuals, communities, past events or ongoing events. Multiple cases were selected for the study. Each case was selected based on the differences in location, infrastructure and the structure of school support committee. The study was started with the determination of case of school development project of each school in which community mobilization (CM) was applied. The study selected the current project each school was implementing for school development.

The schools are located in the remote area where development NGOs have been operated for the community development for decades since 1990s. The schools received constraint technical and financial supports from those NGOs. School staff received series of training on community development. Likewise, community leaders and members have experiences with development NGOs within different sectors. To a certain extent, they were familiar with community resource mobilization process. The schools were observed having community facilitation skills and resource mobilization experience with community members.

Document review was applied for data collection. Formal and informal documents which were relevant to and available for the case study were collected and analyzed. Those documents included school development plans, new academic year reports, mid-term academic reports, annual academic reports, school regulations, charts, tables, organizational structure and hand-written journals. These documents provided information about the structure of community representative at schools and the kinds of development project that the school had. The school planning manuals included community roles in school development.

Unstructured interviews were conducted with school directors to get information about the current development project and how community members and resources were mobilized. The leading questions with school principals focused on their practice in mobilizing community resource for school development. Four leaders of School Support Committee (SSC) were separately interviewed to explore how they assisted and took part in mobilizing community members for education development. The focusing question with SSC leaders were how community representatives supported the schools in mobilizing resources and how community members contributed in school development.

Physical observation was also applied to explore further the information beyond the information from the documents and the interview. For example, most school facilities displayed names of community people who had made financial contributions in the construction of amenities such as toilets, wells, playgrounds, buildings, fences and so forth. Not only were the names written on these tangible facilities, but also the amount of money contributed. These features provided the researcher with evidence of community resource mobilization in respective schools.

The information collected from the field were transcribe and analyzed in NVivo qualitative data analyses. The data was put into theme.

## 5. Results

### 5.1 Different models of community mobilization

Local resources from the communities were vital in school and education development and supplemented the government budget for the school operation. According to the interviews with the school directors, the budget from the government was not enough for the school development, sometimes the budget was late, or the schools had to follow strict budget guidelines from the MoEYS which made it difficult for the school to respond to the real needs. As such, the schools had to mobilize community resources such as materials, money and labour/services to address these restrictions. This research found no unified approach to community resource mobilization applied in the selected schools, but there were some similarities. Each school took an approach that had several steps and processes and these are illustrated through a specific project from each school. Four boxes below depict the different school development projects which were being carried out by the four selected schools during the research period.

#### Case 1: Kindergarten Renovation

Aphiwat is a primary school in a district town having elementary classes and kindergarten classes. Prior to the start of academic year, the school held a consultative meeting with school support committee and parents to discuss school development plan. One of the school development priorities was classroom (kindergarten) renovation because it had broken and cracked floor. The school administrators, SSC and parents decided to include this renovation project into the school development plan. However, the school had budget deficiency as the government budget. The school along with SSC decided to raise fund from parents and community members to complement the budget shortage.

#### Case 2: School construction

Dauntret is a primary school on an end line of a rural road connecting villages in a commune. Majority of village population live along the road. Children living the other end of the road have to ride their bicycle or walk for around 20 minutes on a very quiet, bumpy and muddy road to the school. The distance causes students' frequent absence and limits little children's access to education. SSC leader, parents and the school found solution to help children by building an annex school for those community children.

#### Case 3: School fence construction and water system installation

Sung 1 is a primary school on a main district road in rural area. The school faced problem in protecting school property and did not have water system. The government did not provide enough budget to build fence and installing water system. The two demands were included in the school development plan. As SSC leader was very prestigious in the community and he value education, he proposed the school to prioritize these two needs. The school director called for a meeting to discuss the issue and set fundraising activities to complement budget shortage.

#### Case 4: Building roof Maintenance and school playground construction

Sre Reach is a primary school in a far flunk area off the main road. One of its building had a leaking roof which affected classroom teaching and learning. School playground construction is a continuing project from previous year in its development plan. The school director conducted meeting with SSC leader discussed about budget deficiency. Then, SSC leader conducted meeting and fundraising activities with community members.

The interviews show that in general the schools and SSCs worked collaboratively to mobilize community resources for school development. Both schools and SSCs shared decision-making in planning, roles and responsibilities in carrying out the tasks in the mobilization process. According to primary data from the interviews, secondary data from the schools and my observation, two broad approaches of community resource mobilization can be identified. In the first approach, the school was more active in generating funds and in the second approach, SSCs were more active than the schools in mobilizing resources in the community.

At the beginning of the process of mobilization, for all the schools, the school director called for a meeting with SSC members and teachers to review the school development plan and start the implementation.



Then, the four schools identified target groups of communities to raise funds and a target amount of money to solicit. During the discussion, roles and responsibilities of teachers and SSC members were assigned. In addition, the time frame and target communities for fundraising were discussed. Local authorities were reported providing supports by approving the schools to mobilize resources in the community.

### **The first approach**

Initially, teachers wrote fundraising letters to parents through students after providing information about the fundraising project. Aphiwat School (Case 1) communicated this information by calling for a meeting with parents and by sending the information through students with the details of budget plans in the letter. The meeting aimed at building understanding of parents about the project in order that they contribute their resources to its implementation. The school director believed that communities and parents would participate more when the information was clearly understood.

The information about fundraising was spread in the community through the parents, teachers and students. In the first method, school-based fundraising, the school director sent printed letters to students' parents through students. Some parents put money in the envelope and sent it back to the school through their children. Some parents came to the school to contribute money directly.

After that, fundraising was carried out by the school director and teachers. They went through the communities to meet the wealthy people, authorities, microfinance institutions, banks and business families to raise funds. Teachers and the school director were asked for more information about the purpose of raising funds because the sponsors were sometimes in doubt about the use of the money. The financial contributors were worried that the money would not be used for the purpose of the school development and they only contributed money after clear explanation was given as to its purpose.

In order to build trust, each sponsor was given a 'thank you letter'. The letter stated the name of contributor, amount of money, name of receiver and the purpose of the project. This letter helped contributors to feel confident and trust teachers. In addition, teachers promised to write the names of the contributors on the board to indicate that their money was used for the construction. All schools were observed having a name list of sponsors written on the tablets at school. The practice of writing names of sponsors who contributed money served three purposes: to ensure transparency of the budget expenses, to motivate the community to participate in the school as well as to give the businesses a good reputation in the community. Once the money was collected (the money was put in the envelope by contributors), teachers, the school director and the SSC came together in the office to open the envelope and counted the money. The names of contributors and the amount of money that they contributed were recorded in a book.

### **The second approach**

The second approach of community mobilization was used by three primary schools, Dauntret (Case 2), Sung 1 (Case 3) and Sre Reach (Case 4) primary schools that had village leaders as SSC leaders. In the implementation stage, SSC leaders played roles as village leaders, facilitators and supporters in the communities and schools. As with the first approach, the process of community mobilization started with planning. As required by MoEYS, the schools developed school development plans with the involvement of SSC members, local authorities, parents, children and teachers. In this planning stage, school directors were the facilitators of the meetings. School directors raised the problems that the schools encountered before proposing for solutions from the meeting. For instance, Sung 1 primary school raised plans to build a school fence, but did not have enough in the budget. Thus, the concerns about budget shortages for the construction project were discussed. Once the plans were approved, teachers and SSCs shared their roles and responsibilities to implement the projects.

Following the planning, a series of meetings with parents and communities were conducted to communicate the projects' purposes and benefits for education. In these meetings, the schools built understanding with parents and communities about the benefits of the project. According to the interviews with school directors, there was more participation from communities and parents when information about the project was clearly communicated.

When the SSCs received information from the schools about the school development plan, they then conducted meetings to communicate the projects with communities and parents. At this stage, SSC leaders have a role as village leaders in the communities. According to the SSC leader from Dauntret primary school,

she conducted meetings with household group leaders after the meetings with teachers and school director to spread information about the project and fund-raising activities. Household group leaders take the information to the families in their own villages. The meeting also discussed the amount of money to collect from the parents. They decided to collect a limited amount of money from each family, 5,000 riels which is about US \$1.25. However, this amount was not the upper limit and families were welcome to contribute more. Village leaders and household cluster leaders started their financial contribution in the first meeting in the community, leading by example. Household cluster leaders were responsible for collecting money from their member families.

Another source of funding was from the Buddhist pagoda. Dauntret primary school is close to a pagoda. The two institutions have a connection and the school director from Dauntret primary school has always asked for financial and material contribution from the pagoda. The school director and SSC leader, who is a Buddhist supporter, initiated putting a fundraising box in the pagoda to raise funds for school development. SSC put a fundraising box in the pagoda to raise money for the school development. At some religious occasions [Bon], SSC could raise 100,000 riels [equal to USD 25]. Because of the good connection with the school, the Buddhist pagoda leaders usually contribute money and cement for school renovation (Dauntret SSC leader, personal communication, May 2017, 18). (Dauntret SSC, personal communication, May 2015,18).

Sung 1 also had Buddhist pagoda support. Even though far from the pagoda, Sung 1 has connections with pagoda because some SSC members are Buddhist clergy people. Sung 1 school director commented that clergy people who were SSC members coordinated fund raising in the pagoda in religious occasions for the schools (Sung 1 school director, personal communication, May 2015,19).

## 5.2 Leadership

The current study found that the schools and community leaders played leading roles in community participation. Leadership was very important in mobilizing community participation in education. The leadership of school directors and SSCs (especially SSC leaders) was crucial not only for ensuring the school was well operated, but also for facilitating community participation and mobilizing community resources for school development.

### *School Leadership*

The interviews with the school directors show that the four school directors had significant leadership roles in managing the schools. Leadership was shown through transparency, which was the first response by the four school directors when asked about the factors that made communities participate in education. The data from the interviews reveal that the schools gained trust from the communities because teachers and school administrators (school directors and admin staff) were transparent in conducting school operations.

School administrators were transparent not only with communities, but also with the teachers in the school in planning and using the budget. When the government budget was granted to the schools, teachers and SSCs conducted discussion meetings about budget allocation and involved SSCs and teachers in all aspects of financial decision making. A Buddhist monk leader said that one of the meetings that he had attended was about budget allocation receiving from MoEYS and NGOs (Buddhist monk leader, personal communication, May 2015,18). The interview data with school directors and SSCs show another leadership quality in that school directors and teachers were good at building relationships. School directors made good connections with communities, parents, local authorities and religious institutions. As a result, these groups of communities contributed to the school development. Additionally, the four school directors provided consistent responses that parents trusted the schools because of the teachers' performance and commitment to their teaching (with only a few days of absenteeism).

School directors were aware of the value of networking. The interviews show that school directors as well as their staff built connections with parents, communities, local authorities and NGOs to improve education. Communities are contributors for school and education improvement. They contributed money, labour and materials for school development and to protect the school properties (Aphiwat Samlot School director, personal communication, May 2015,11).

*SSC Leaders' leadership*

The interviews with school directors and SSC leaders reveal that SSC leaders were consistently willing to support their schools. The SSC leaders had an intrinsic motivation to help their school. Even though they were unpaid, they were enthusiastic about spending their time to help the schools because they perceived that helping the schools would have long term impacts in their communities. The children in the next generation would then also develop their communities. SSC leaders were influential in the schools and in the communities. Three out of four SSC leaders were also village leaders. SSCs were responsive and focused on the school development. One SSC leader was a former school director, so he also had influence in his community even though his level of power was not equal to that of the village leaders.

SSC leaders were observed using their positional power as village leaders to influence their community. According to the interview with school directors and SSC leaders, as local authorities, the village leaders, who are also SSC leaders, spread education information in their villages, and tell parents to send their children to schools and encourage families to support children learning at home. Village leaders were reported to be effective in resource mobilization.

[...] we selected and voted for the one who has authority roles such as village leader or deputy village leader to be an SSC leader [...] if we have local authorities as leader in SSC, he has power of mouth. (Sre Reach school director, personal communication, May 2015,25)

This section can be concluded that SSCs and school administrators were the driving force in bringing community people and parents together to participate in children's education.

**6. Discussion**

The study was conducted to find out the methods and procedure to mobilizing community for school development and to explore the leadership roles of the school management and the community representatives (present as School Support Committee) in mobilizing community to participate in the development process. The study found similar methods of community mobilization for school development practiced by the four selected schools, however, each school is found applied the methods in different procedure based on their development projects, their practices were influenced by the participation of the School Support Committee (SSC) who are community representatives in the schools. The study also found that the leadership of the school management and SSC were very crucial for the school and education development and their leadership shaped how they engage and bring people to engage in school and education development.

According to the finding, community resource contribution can be summarized having two models; the school-led resource mobilization (the first model) which was carried out by the schools with consultation and support from SSCs, and delegated-resource mobilization which were responsible by SSCs to solicit money in the community. The first method of mobilization had the teachers to take responsibilities to solicit money from the community and education stakeholders. SSCs only provided advisory support in this method. Meanwhile, there was the delegation to SSCs to conduct fund raising within the second method of community mobilization. SSCs that had village leaders as SSC leaders had influences on the people in the community. SSCs were in charge of collecting money and make payment for the construction. SSCs had power in the decision-making in school development.

Every school has to have SSC in planning, executing, monitoring and evaluation the education in the school. As SSC had to be consulted about school development, the four school, according to the finding, had meetings with SSC leaders who represented community to discuss about the occurring problems and identified solutions. This step was to ensure that the problems were well aware of. However, not all the four school had SSCs engaged in problem identification at the first stage. SSCs, in some cases, were just called for meeting to understand the problem that might affect the children's learning. SSCs were engaged in the discussion about how raise fund for development projects in which government funding was limited. Each school was observed doing budget estimation of each project. Then, they set target funding to raise to complement the existing government fund.

The finding shows that community representative engaged with the schools to identify the problems. They joined in school development plan process in which they could raise their concerns regarding education development. This approach could help the schools to have meaningful participation from the community. In

other words, community people had ownership in education development. The effort to engage people in the education development relies on the capacity and leadership of the schools and the community representatives. The study found that school directors are local people and very senior in the community. They received capacity development from NGOs within the areas on school administration. Thus, they seemed to have capacity in mobilizing community for their school development. In addition, SSC were the catalysts in mobilizing resources. They are very senior in the community, very influential as they are former school director and local authorities, and they live in the village. In Cambodian culture, old people who are literate and have position in the local government are very highly respected. This made them have high trust among community members whom they can mobilize resources for development. In short, the partnership between the schools and community representatives were the lubricant in mobilizing community in education development.

School and SSC are strong partners in promoting participation in education. However, SSC sometime were just a rubber stamping which were called for the meeting to meet the requirement of the MoEYS. SSC should have been given power in schooling process. Study on the work of SSC in operating school should be studied.

#### **School and SSC collaboration**

The study investigated the leading roles of the schools and community to mobilize community participation. The schools were found to possess leadership characteristics that entrusted the communities to get involved. The study found the schools were transparent in the school administration. The schools presented their plans to the community members, and the money that community members contributed was displayed on the school facilities. School staff were reported as having good relationships and being good network builders. They built connections with community members and encouraged community people to get involved in children's education.

SSCs were reported as having positive leadership roles in supporting education programs in the schools. More specifically, SSC leaders were the main supporters for school development. They were confident and powerful in the community. Because they were local authorities and former school directors, SSC leaders of the four schools gained high respect from the community and teachers. They were reported to have commitment in supporting the schools as well.

The findings of the current study were consistent with Sanders in terms of the factors that enhanced community participation in education. Sanders (2001) found that leadership roles of the school leaders were important for making partnerships between school, family and community. This contention indicates that to ensure that community participation take place, school leaders and staff could play roles in facilitation, coordination, designing, implementing, monitoring and evaluating the community participation in education.

Likewise, this research found that the leading roles of the schools and SSCs were crucial to enabling community participation in education. School directors and SSC leaders were found playing roles as communicators and community mobilizers in the schools and in the community. However, the school directors and SSC leaders needed strong management and leadership skills so that they could mobilize community participation (Pellini, 2007). Better leadership and management skills could enable the school and SSCs to more effectively mobilize community members and civil society to participate in education, such as providing training in parenting skills to parents and teachers.

Reflecting to the project management framework and community mobilization framework, the study shows that the schools and SSCs have capacity at a certain level in mobilizing community resources for school development. They started with need identification for school development which is an assessment stage in project management framework. The schools and SSCs continued to a planning stage in which school management teams and SSC leaders came together to set schedule, task and timeframe of the action (which is a planning stage). During this stage, both schools and SSCs clarified roles and responsibilities in performing tasks. For instance, the school raised fund among teachers while SSC leaders outreached the community to raise fund. Both Schools and SSCs were well aware of the context and they divided tasks accordingly. In the project implementation stage, both sides, the schools and SSCs used their facilitation and communication skills to raise fund to reach their target. The schools used verbal and non-verbal communication to clarify any doubts with those who contributed fund. SSC leaders had meetings before and after fundraising activities by

informing about the purpose and how the money would be managed. In monitoring stage, the study also indicated that schools and SSCs had discussions about how much money and resources they raised. SSCs gave resources and money to the schools with recording in the books (handover stage). Both sides also had reflection about their work.

## 7. Conclusion

The four selected schools had different ways of mobilizing community resources for school development. Both methods identified were suitable in the local context, and could be applicable in other areas throughout the country or in different countries. The first method was school-led resource mobilization which was carried out by the schools with consultation and advisory support from SSCs. This method was associated with teachers' roles to conduct fundraising in the community. SSCs only provided advice to the schools. Teachers were the facilitators, fundraisers, organizers and communicators. The second method, delegated-resource mobilization was the responsibility of SSCs to solicit money in the community. This method shows the power distribution among schools and SSCs. As SSC members were local authorities and elderly people who were socially respected, they could use their influence in mobilizing community resources. SSCs were the resource mobilizers and facilitators. The schools that had village leaders as SSC leaders used this method. The method tended to be effective for mobilizing resources, and reflects the genuine participation of community people in SSCs as partners with the schools.

The practice of community mobilization for school development in the study area even though could not be generalized for the whole country, it reflects the common practices by the remote primary schools to mobilize resources for school development when it had financial deficiency. The schools alone could not bring community people to engage in school development. The active participation of SSCs is crucial as SSC leaders and members are community representatives in the school who stay closely with community. They are also the connectors between schools and community. In addition, the active participation in schools relies on leadership of both school leaders and SSC leaders.

## 8. Limitations of the study

The method of community mobilization was limited to mobilizing community resources for school development, rather than mobilizing community people to get involved and invest in education. The study investigated how the schools and SSCs worked together to collect community resources to complement government budget for school development. This tended to be material-based and respond to the need to supply learning facilities for education. Further research should focus on methods of mobilizing local people to be more involved in children's learning processes.

The study was limited in determine the power of the school administrators and that of School Support Committee. The study determined the surface of the influence of school directors and SSC leaders in the community. However, it did not explore in detail the power exercise in the community in which further research should focus. Also, this research explored a phenomenon within its context but not using a variety of data sources so there is no triangulation evidence.

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## APPENDIX A

### RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)

#### ACKNOWLEDGEMENTS

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 Polwat Lerskullawat, *Kasetsart University, Thailand*  
 Pongjan Yoopat, *Rangsit University, Thailand*  
 Ponn Virulrak, *Chulalongkorn University, Thailand*  
 Pornchai Tarkulwaranont, *Thammasat University, Thailand*  
 Pornsook Tantrarungroj, *Chulalongkorn University, Thailand*  
 Phaituraya Dassé, *Thammasat University, Thailand*  
 Prapaporn Chukumnerd, *Prince of Songkla University, Thailand*  
 Prapon Sahapattana, *National Institute of Development Administration, Thailand*  
 Praveen Nahar, *National Institute of Design, India*  
 Prayoon Tosanguan, *Rangsit University, Thailand*  
 Ponn Virulrak, *Chulalongkorn University, Thailand*  
 Pornchai Tarkulwaranont, *Thammasat University, Thailand*  
 Rattaphong Sonsuphap, *Rangsit University, Thailand*  
 Raymond Andrew Zepp, *Dewey International University, Cambodia*  
 Romyen Kosaikanont, *Mae Fah Luang University, Thailand*

Ruja Pholsward, *Rangsit University, Thailand*  
 Rujira Sa-ngasang, *Eastern Asia University, Thailand*  
 Sakon Varanyuwatana, *Thammasat University, Thailand*  
 Sillapaporn Srijunpetch, *Thammasat University, Thailand*  
 Siridech Kumsuprom, *Dhurakij Pundit University, Thailand*  
 Somboon Suksamran, *Siam University, Thailand*  
 Sompong Sanguanbun, *Rangsit University, Thailand*  
 Sompong Sucharitul, *Rangsit University, Thailand*  
 Somsak Tambunlertchai, *Thammasat University, Thailand*  
 Srisombat Chokprajakchat, *Mahidol University, Thailand*  
 Sukanya Buranadechachai, *Burapha University, Thailand*  
 Suphat Sukamolson, *Maejo University, Thailand*  
 Sunee Kanyajit, *Mahidol University, Thailand*  
 Supachai Kunaratanapruk, *Rangsit University, Thailand*  
 Supasawad Chardchawarn, *Thammasat University, Thailand*  
 Supawadee Sukeechep Moss, *Rajamangala University of Technology, Suvarnabhumi, Thailand*  
 Surachai Sirikrai, *Thammasat University, Thailand*  
 Surachart Bumrungsuk, *Chulalongkorn University, Thailand*  
 Suraphol Srivithaya, *Rangsit University, Thailand*  
 Surapong Jayanama, *Former Ambassador of Thailand to Vietnam, República Portuguesa, Greece, Germany, and Republic of South Africa*  
 Surasit Thanadtang, *National Research Council of Thailand, Thailand*  
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 Surichai Wankaew, *Chulalongkorn University, Thailand*  
 Susumu Ueno, *Asia-Pacific Management Accounting Association, Japan*  
 Sutham Cheurprakobkit, *Kennesaw State University, USA*  
 Suthiphad Chirathaivat, *International Institute for Trade and Development, Thailand*  
 Teerana Bhongmakapat, *Chulalongkorn University, Thailand*  
 Teerawat Wongkaew, *Ministry of Foreign Affairs, Thailand*  
 Thanit Chindavanig, *Chulalongkorn University, Thailand*  
 Thawatchai Suvanpanich, *Sukhothai Thammathirat, Thailand*  
 Theera Nuchpiam, *Chulalongkorn University, Thailand*  
 Thira Chavarnakul, *Chulalongkorn University, Thailand*  
 Thunyawat Chaitrakulchai, *Independent Scholar, Thailand*  
 Todsanai Chumwatana, *Rangsit University, Thailand*  
 Tomasz Wnuk-Pel, *University of Lodz, Poland*  
 Varakorn Samakoses, *Dhurakij Pundit University, Thailand*  
 Veerapong Boonyopas, *Chulalongkorn University, Thailand*  
 Vichoke Mukdamanee, *Silpakorn University, Thailand*  
 Vilawan Mangklatanakul, *Ministry of Foreign Affairs, Thailand*  
 Visanu Vongsinsirikul, *Dhurakij Pundit University, Thailand*  
 Visarut Phungsoondara, *Thammasat University, Thailand*  
 Wael Musts-fa Faye Abuhasan, *Arab American University, Palestine*  
 Wanpadej Hongthong, *Mahidol University, Thailand*  
 Wararak Chalermpuntusak, *Sukhothai Thammathirat, Thailand*  
 Wasan Luangprapat, *Thammasat University, Thailand*  
 Wichit Srisa-An, *Suranaree University of Technology, Thailand*  
 Witsanuphong Suksakhon, *Rangsit University, Thailand*  
 Worachat Churdchomjan, *Rangsit University, Thailand*  
 Yunlin Yang, *Rangsit University, Thailand*

## APPENDIX B

### RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)

#### NOTE FOR AUTHORS

##### 1. Aims and Scope

*Rangsit Journal of Social Sciences and Humanities (RJSH)* is a multidisciplinary international scholarly journal that aims to provide a high profile vehicle for publication of various new issues in different academic areas. The scope of the *Journal* encompasses, but not limited to Interdisciplinary Studies in Humanities and Social Sciences, any of the following areas:

Arts & Design	Economics	Hotel Management	Music
Accounting	Education	International Studies	Risk Management
Business	Finance	Language	Social Innovation
Communications	Food and Food Catering	Law	Tourism
Corporate Risks and Corporate Governance	Fraud Investigations and Legal Aspects	Logistics	Public Policy
Criminal Justice Issues	History		

##### 2. Submission Deadline

Submissions are to be permanently open. A manuscript submitted between July 1<sup>st</sup> and December 31<sup>st</sup> will be considered for publication in the January-June Issue of the subsequent year whereas a manuscript submitted between January 1<sup>st</sup> and June 30<sup>th</sup> will be considered for publication in the July-December Issue.

##### 3. Categories of Articles

The *Journal* accepts the following types of articles:

1. **Research Articles:** A research article is a regular quantitative or qualitative article which aims to present new findings or interpretations.
2. **Notes or Address:** A brief record of something or speech written down that presents important issues.
3. **Review Articles:** There are two types of review articles: non-systematic (or journalistic) reviews and systematic reviews. Non-systematic or journalistic reviews provide a summary of evidence derived from primary studies that have been selected and synthesized according to the author's personal and professional perspective. Non-systematic reviews can cover a wide range of subject matter at various levels of totality and comprehensiveness. Systematic reviews, on the other hand, provide summaries of related primary studies that have been searched for, evaluated, and selected and reported according to a rigorous methodology.
4. **Innovations:** An innovation is an article which aims to present creative arts and designs, procedures or devices.
5. **Comments or Critiques:** A comment or critique is a short article that makes comments or replies to a comment on another article already published by this Journal.
6. **Book Reviews:** A book review is a short article that is written by a specialist and read by the general community. The aim of a book review is to give a brief summary of the book's strengths and weaknesses and to evaluate the book's overall usefulness to the audience it is intended for.

Research articles, review articles, and innovations should not exceed 15 pages of standard A4 paper using *RJSH* format. Notes, comments or critiques, and book review should not exceed 5 pages. Template for research articles is available at <https://rjsh.rsu.ac.th>. All categories of articles must coincide with manuscript preparation instruction (see Manuscript Preparation Section).

#### 4. Editorial Policies

*RJSH* accepts only the work that has not been published; that is not under consideration for publication, elsewhere; and that its publication has been approved by all co-authors and the relevant authorities responsible at the institute where the work was conducted. Submission also implies that the authors have already obtained all necessary permissions for the inclusion of copyrighted materials, such as figures and tables from other publications. Previously published work will not be considered for publication. Submitting a copied piece of writing as one's own original work is considered plagiarism. The *Journal* is published by Rangsit University Press, Thailand. Contributions are in English. Copyright is by the publisher and the authors.

**Authorship:** *RJSH* expects that all of the authors listed on a manuscript have contributed substantially to the submitted paper. By submission of the manuscript, cover letter, and Copyright Transfer Agreement (CTA), the corresponding author affirms that all named authors have agreed to be listed as authors of the paper. Furthermore, by their signatures on the CTA, all authors affirm that they have both read and approved the manuscript, and that they take full responsibility for the content of the article.

**Review Process:** *RJSH* assumes responsibility for insuring that submitted manuscripts receive expert and unbiased reviews. *RJSH* strives to complete a peer review of all submitted papers and the publication of accepted manuscripts in a timely manner and to keep the authors informed of any problems with their manuscript. All submitted manuscripts are initially evaluated by the Editor-in-Chief in consultation with members of the Editorial Board before being sent for double-blind review. *RJSH* is under no obligation to submit every manuscript to formal peer review. Manuscripts that are judged by the editors to be inferior or inappropriate for publication in the *Journal* may, at the discretion of the Editor-in-Chief, be rejected without formal written reviews by referees. *RJSH* attempts to obtain at least two written reviews for each manuscript that is entered into the peer review process, although the Editor-in-Chief has the discretion to make final decisions about the disposition of a manuscript with fewer than two reviews. The reviewers' evaluations will be used by the editors to decide whether the paper should be accepted, revised or rejected. A copy of the referees' comments will be sent to the corresponding authors whose paper needs revision. All reviewers serve anonymously and their identities are protected by the confidentiality policy of *RJSH*.

**Confidentiality:** As is customary for the peer review process, *RJSH* holds the identity of authors and the contents of all submitted manuscripts in confidence until such time as the papers are published. This confidentiality extends to the comments of editors and reviewers that have evaluated the paper; these comments and reviews are released only to the corresponding author. Co-authors may have access to these documents either by obtaining them directly from the corresponding author or by submitting to *RJSH* a letter of request that has been signed by the corresponding author. Similarly, *RJSH* expects that editors and reviewers will maintain strict confidentiality of the authors' identities and the contents of manuscripts that they examine during the review process, and furthermore, will never disclose the contents (either orally or in writing) of documents related to the peer review of a manuscript. A violation of this policy is considered a serious breach of trust.

**Research Involving Animals or Humans:** Authors must state in the manuscript that the work was approved by, at least, their institutional ethical review board for any research involving human and animal subjects. These approvals are required for publication in *RJSH*.

#### 5. Manuscript Preparation

**General Instruction:** Submit your manuscript in both PDF and MS word formats. Manuscripts are acceptable in both US and UK English, but the use of either must be consistent throughout the manuscript. Please note that the editors reserve the right to adjust style to certain standards of uniformity.

**Format:** Unless specified, type text with 10-point Times New Roman font on 12-point line spacing, with a 1.25 inch left margin, 1 inch bottom and right margin, 2 inch top margin, 1.2 inch header, and 0.6 inch footer. Main text is set in single column. First lines of paragraphs are indented 0.5 inch. For hard copy, use standard A4 paper, one side only. Use ordinary upper- and lower-case letters throughout, except where italics are required. For titles, section headings and subheadings, tables, figure captions, and authors' names in the text and reference list: use ordinary upper- and lower-case letters throughout. Start headings at the left margin.

If you wish, you may indicate ranking of complicated section headings and subheadings with numerals (1, 1.1, 1.1.1). Try not to exceed three ranks. All pages must be numbered in the top right-hand corner.

**Title:** Use 11-point bold font on 12-point line spacing. The length of the title of the article must not exceed 2 lines. A title should be concise and informative. The alignment of the title is centered.

**Author Names:** Use 10-point font on 11-point line spacing. Centered alignment and leave one line space below the title of the article. Begin with the first name of the author followed by the last name. For more than one author, separate each name by a comma (,), and identify each author's affiliation by superscript numbers at the end of the author's last name.

**Author Affiliations:** Use 9-point font on 10-point line spacing. Centered alignment and leave one line space below the author names. Include institutional and e-mail addresses for all authors. Place superscript numbers at the beginning of each affiliation accordingly.

**Abstract:** Use 10-point font on 11-point line spacing for heading and 9-point font on 11-point line spacing for abstract content. An abstract of up to 250 words must be included as and when appropriate. For research papers; the purpose and setting of the research, the principal findings and major conclusions, and the paper's contribution to knowledge should be briefly stated. For empirical papers the locations of the study should be clearly stated, as should the methods and nature of the sample, and a summary of the findings and conclusion. Please note that excessive statistical details should be avoided, abbreviations/acronyms used only if essential or firmly established.

**Keywords:** List up to 6 keywords and separate each keyword by a comma (,). The keywords should accurately reflect the content of the article. The keywords will be used for indexing purposes.

**Main Text:** Use 10-point font on 12-point line spacing. In the main body of the submitted manuscript the following order should be adhered to: introduction, methodology, results (if any), discussion (if any), conclusion, acknowledgements, and references. Please note that some article categories may not contain all components above. Tables or figures must be included in the text for the reviewing process. In addition, tables and figures must also be submitted individually in separate files. Refer in the text to each table or illustration included, and cite them in numerical order, checking before submission that all are cited and in correct sequence.

**References in the Text:** To insert a citation in the text use the author-year system, i.e., the author's last name and year of publication. Examples are as follows: "Since Johnson (2008) has shown that..." or "This is in agreement with results obtained later (Benjamin, 2010)". For 2-3 authors; all authors are to be listed, with "and" separating the last two authors, for more than three authors, list the first author followed by et al. The list of references should be arranged alphabetically by authors' names. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. Responsibility for the accuracy of bibliographic citations lies entirely with the author(s). Citation of a reference as "in press" implies that the item has been accepted for publication. Authors are responsible for the accuracy of the content of the references.

**List of References:** *RJSH* uses the American Psychological Association (APA) referencing style, details of which can be found at <http://www.apastyle.org/>. References should be listed at the end of article, arranged alphabetically according to the last names of the authors and then chronologically. The following are examples of the APA referencing style:

#### **Abstracts**

Author./ (Year of publication)./Title of Abstract (abstract)./ *Journal Title*,/Volume(Issue),/Page number.

#### **Example:**

Clark, D. V., Hausen, P. H., & Mammen, M. P. (2002). Impact of dengue in Thailand at the family and population levels (abstract). *Am J Trop Med Hyg*, 67(2 Suppl), 239.

### **Books**

Author./ (Year of publication)./ *Book Title: /Capital letter also for subtitle. /Edition (if any). /Location: /Publisher.*

#### **Example:**

Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.

### **Article or Chapter in an Edited Book**

Author./ (Year of publication)./ *Title of chapter. /In/Editor/ (Ed.). /Book Title/ (pages of chapter). /Location: /Publisher.*

#### **Example:**

O'Neil, J. M., & Egan, J. (1992). Men's and women's gender role journeys: A metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107-123). New York, NY: Springer.

### **Conference and Seminar Proceedings**

To cite proceedings that are published regularly, use the same format as for a journal article. To cite proceedings that are published in book form, use the same format as for an article in a book.

### **Dissertation or Thesis**

Author./ (Year of publication)./ *Title of dissertation or thesis / (Doctoral dissertation or Master's thesis). /Awarding Institution.*

#### **Example:**

Norasingha, A. (2009). *Expression and distribution of mucorinic receptors in hepatic composite of the cirrhotic rat* (Master's thesis). Rangsit University, Pathum Thani.

### **Editorials**

Author./ (Year of publication)./ *Title of Editorial (editorial). /Journal Title, / Volume(Issue), /Page numbers.*

#### **Example:**

Fisher, R. I. (2003). Immunotherapy in Non-Hodgkin's lymphoma: Treatment advances (editorial). *Semin Oncol*, 30(2Suppl 4), 1-2.

### **Journal Articles**

Author./ (Year of publication)./ *Article Title. /Journal Title, /Volume(Issue), /Page numbers.*

#### **Example:**

- Leelawat, S., Leelawat, K., Narong, S., & Matangkasombut, O. (2010). The dual effects of delta 9-tetrahydrocannabinol on cholangiocarcinoma cells: Anti-invasion activity at low concentration and apoptosis induction at high concentration. *Cancer Investigation*, 28(4), 357-363.
- Polk, A., Amsden, B., Scarrrt, D., Gonzal, A., Oknamefe, O., & Goosen, M. (1994). Oral delivery in aquaculture. *Aquacult. Eng*, 13, 311-323.
- Seals, D. R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Advances in Physiology Education*, 23(1), 52-58.
- Srichandum, S., & Rujiranyong, T. (2010). Production scheduling for dispatching ready mixed concrete trucks using bee colony optimization. *American J. of Engineering and Applied Sciences*, 3(1), 823-830.

### **Letters**

Author./ (Year of publication)./ *Title of Letter. /Journal Title, / Volume(Issue), /Page number.*

#### **Example:**

Enzensberger, W., & Fisher, P.A. (1996). Metronome in Parkinson's disease (letter). *Lancet*, 347, 1337.

### **Notes**

Author./ (Year of publication)./ *Title of Note. /Journal Title, / Volume(Issue), /Page number.*

#### **Example:**

Haier, R. J., Schroeder, D.H., Tang, C., Head, K., & Colom, R. (2010). Gray matter correlates of cognitive ability tests used for vocational guidance. *Biomed Central*, 3, 206.

**Unpublished/In Press Articles**

Author./(In press Year)./Article Title./*Journal Title*./(in press).

**Example:**

Veena, B. (2004). Economic pursuits and strategies of survival among Damor of Rajasthan. *J Hum Ecol.* (in press).

**Internet periodicals**

Author./(Year of publication)./Article Title./*Journal Title*./Volume(issue)./ page numbers./Retrieved mm dd, year, from the full URL of the web page

**Example:**

Adams, P. J. (2000). Australian economic history. *Journal of Australian Economics*, 5(2), 117-132.  
Retrieved June 12, 2001, from <http://jae.org/articles.html>

**Internet non-periodicals**

Author./(Year of publication)./Article Title./Retrieved mm dd, year, from the full URL of the web page

**Example:**

Lemire, D. (n.d.). Write good papers. Retrieved July 1, 2010, from <http://www.daniel-lemire.com/blog/rules-to-write-a-good-research-paper>

**Illustrations and Figures:** All illustrations should be provided in a file format and resolution suitable for reproduction, e.g., EPS, JPEG or TIFF formats, without retouching. Photographs, charts and diagrams should be referred to as "Figure(s)" and should be numbered consecutively in the order to which they are referred. In addition to placing figures with figure captions into the main text, **submit each figure individually as a separate file.**

**Line Drawings:** All lettering, graph lines and points on graphs should be sufficiently large and bold to permit reproduction when the diagram has been reduced to a size suitable for inclusion in the journal. Do not use any type of shading on computer-generated illustrations.

**Figure Captions:** Type figure captions using 9-point font on 10-point line spacing. Insert figures with figure captions into the main text (see **Illustrations and figures** Section). Type as follows: Figure 1 Caption

**Color:** Where printed color figures are required, the author will be charged at the current color printing costs. All color illustrations will appear in color online, at no cost. Please note that because of technical complications which can arise when converting color figures to grayscale, for the printed version should authors not opt for color in print, please submit in addition usable black and white versions of all the color illustrations.

**Tables:** Tables must be cell-based without vertical lines. They should be produced in a spreadsheet program such as Microsoft Excel or in Microsoft Word. Type all text in tables using 9-point font or less. Type the caption above the table to the same width as the table. Insert tables and table captions into the main text. Tables should be numbered consecutively. Footnotes to tables should be typed below the table and should be referred to by superscript numbers. Submit separate files of tables in their original file format and not as graphic files in addition to incorporating in the main text. Tables should not duplicate results presented elsewhere in the manuscript (e.g., in graphs).

**Proofs:** Proofs will be sent to the corresponding author by PDF wherever possible and should be returned within 1 week of receipt, preferably by e-mail. Corrections must be restricted to typesetting errors. It is important to ensure that all of your corrections are returned to us in one all-inclusive e-mail or fax. Proofreading is solely the responsibility of the author(s). Note that *RJSH* may proceed with the publication of your article if no response is received in time.

**Reprints:** Authors will receive free copy of the journal in which their work appears.

**English Language Editing before Submission:** Authors for whom English is a second language may choose to have their manuscript professionally edited before submission.

## 6. Manuscript Submission

Manuscripts should be submitted electronically to the Editor-in-Chief as an attachment via the RJSH submission system, in word processing format. The *RJSH* submission form must be completed. Included in the submission form are: (a) the title and authors, (b) complete contact information for the corresponding author (mailing address, e-mail address, and telephone and fax numbers), (c) confirmation of the originality of the reported work, (d) approval of the submitted version of the manuscript by all authors, and (e) the authors' consent for publication in *RJSH*, if accepted. The submission form is available at <https://rjsh.rsu.ac.th>.

## 7. Manuscript Revision and Re-submission

There are four editorial decisions: Accept, Accept with Minor Revision, Resubmit with Major Revision, and Reject. A Reject decision is definitive and authors may not submit a new version of the manuscript to the *RJSH*. A Resubmit with Major Revision requires a major re-write of the manuscript and/or inclusion of significant new data, and thus the creation of a new manuscript, which will thus be assigned a new submission date. An Accept with Minor Revision decision implies that the paper can, in principle, attain the required standard of the *Journal* without major change. Editors may or may not have a revised manuscript reviewed (generally, by the original reviewers), in order to ascertain whether changes to the original manuscript adequately responded to the criticisms. If changes made do not result in a paper of the required standard, the revised manuscript will be definitively rejected. If a revised manuscript of "Accept with Minor Revision" is accepted, the original submission date will be retained.

## 8. Copyright Agreement

Once a manuscript is accepted for publication, authors will be required to sign a Copyright Transfer Agreement form (CTA). CTA is available at <https://rjsh.rsu.ac.th>. Signature of the CTA is a condition of publication and papers will not be passed for production unless a signed form has been received. Please note that signature of the Copyright Transfer Agreement does not affect ownership of copyright in the material. Please submit the completed form with the final version of the manuscript back to the Editor-in-chief.

## 9. Further Reading

The following resources will provide valuable guidelines for the preparation of manuscripts.

Anonymous. (n.d.). How to write abstract. Retrieved January 17, 2011, from

[http://www.journal.au.edu/au techno/2006/jan06/vol9num3\\_howto.pdf](http://www.journal.au.edu/au techno/2006/jan06/vol9num3_howto.pdf)

Anonymous. (n.d.). How to write an abstract: Links and tips. Retrieved January 17, 2011, from

<http://research.berkeley.edu/ucday/abstract.html>

Koopman, P. (n.d.). How to write an abstract. Retrieved January 17, 2011, from

<http://www.ece.cmu.edu/~koopman/essays/abstract.html>

Lemire, D. (n.d.). Write good papers. Retrieved January 17, 2011, from <http://lemire.me/blog/rules-to-write-a-good-research-paper/>

Plonsky, M. (n.d.). Psychology with style: A hypertext writing guide. Retrieved January 17, 2011, from <http://www.uwsp.edu/psych/apa4b.htm>

Seals, D. R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Advances in Physiology Education*, 23(1), 52-58.

Jones, A., & Pham, H. (n.d.). Basic Referencing using the APA System, Teaching and learning unit, Faculty of Economics and Commerce, The University of Melbourne. Retrieved February 15, 2011, from <http://www.scribd.com/doc/57603066/A-Pa-Style>



## APPENDIX C

### RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)

#### *Research Article Single-Column Template*

Please note that the paper size is standard A4 size (approx 8.27 x 11.69 in)

**Type your title here using 11-point Times New Roman bold font on 12-point line spacing.  
The length of the title of the article must not exceed 2 lines.**

Author Names (Use 10-point Times New Roman font on 11-point line spacing.

Begin with the first name of the author followed by the last name. For more than one author, type 'and' before the last author's name. For more than two authors, also separate each name by a comma (,).

Identify each author's affiliation by superscript numbers at the end of the author's last name.)

Author Affiliations (Use 9-point Times New Roman font on 10-point line spacing.

Include institutional and e-mail addresses for all authors. Place superscript number in front of author's affiliation corresponding to author's name.)

Received date month year / Revised date month year / Accepted date month year / Publish Online date month year

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#### **Abstract (10-point bold font on 11-point line spacing)**

For abstract content, use 9-point Times New Roman font on 11-point line spacing. First line is indented 0.5 inch. An abstract of up to 250 words must be included. Include your major findings in a useful and concise manner. Include a problem statement, objectives, brief methods, results, and the significance of your findings.

**Keywords:** List up to 6 keywords and separate each keyword by a comma (,). The keywords should accurately reflect the content of the article. The keywords will be used for indexing purposes.

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#### **1. Introduction**

The actual manuscript will be published in a single-column style in the RJSH journal. This single column template is adopted as a user friendly format. Thus, with this template, the main text is set in a single column. Type text with 10 point Times New Roman font on 12 point line spacing, with a 1.25 inch left margin, 1 inch bottom and right margin, 2 inch top margin, 1.2 inch header, and 0.6 inch footer. First lines of paragraphs are indented 0.5 inch. Please note that the paper size is standard A4 size (approx 8.27 x 11.69 in). In MS Word, select "Page Layout" from the menu bar, and under Paper Size select A4 Size.

The introduction should put the focus of the manuscript into a broader context. As you compose the introduction, think of readers who are not experts in this field. Include a brief review of the key literature. If there are relevant controversies or disagreements in the field, they should be mentioned so that a non-expert reader can find out about these issues further. The introduction should conclude with a brief statement of the overall aim of the experiments.

To insert a citation in the text use the author-year system, i.e., the author's last name and year of publication. Examples are as follows: "Since Johnson (2008) has shown that..." or "This is in agreement with results obtained later (Benjamin, 2010)". For 2-3 authors; all authors are to be listed, with "and" separating the last two authors, for more than three authors, list the first author followed by et al. The list of references should be arranged alphabetically by authors' names. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. Responsibility for the accuracy of bibliographic citations lies entirely with the author(s). Citation of a reference as "in press" implies that the item has been accepted for publication. Authors are responsible for the accuracy of the content of the references.

## 2. Objectives

The objectives of the study should be specified explicitly.

## 3. Materials and Methods

This section should provide enough detail to allow full replication of the study by suitably skilled investigators. Protocols for new methods should be included, but well-established protocols may simply be referenced.

## 4. Results

The results section should provide details of all of the experiments that are required to support the conclusions of the paper. There is no specific word limit for this section. The section may be divided into subsections, each with a concise subheading. The results section should be written in past tense.

Tables must be cell-based without vertical lines. They should be produced in a spreadsheet program such as Microsoft Excel or in Microsoft Word. Type all text in tables using 9-point font on 10-points line spacing. Type the caption above the table to the same width as the table.

Tables should be numbered consecutively. Footnotes to tables should be typed below the table and should be referred to by superscript numbers. Submit separate files of tables in their original file format and not as graphic files in addition to incorporating in the main text. Tables should not duplicate results presented elsewhere in the manuscript (e.g., in graphs).

**Table 1** Table caption

C1	C2	C3	C4
R1			
R2			
R3			
R4			
R5			
R6			

If figures are inserted into the main text, type figure captions below the figure. In addition, submit each figure individually as a separate file. Figures should be provided in a file format and resolution suitable for reproduction, e.g., EPS, JPEG or TIFF formats, without retouching. Photographs, charts and diagrams should be referred to as "Figure(s)" and should be numbered consecutively in the order to which they are referred



**Figure 1** Figure caption

**Table 2** Table caption

C1	C2	C3	C4	C5	C6	C7
R1						
R2						
R3						
R4						
R5						
R6						
R7						
R8						
R9						
R10						

**Figure 2** Figure caption

## 5. Discussion

The discussion should spell out the major conclusions of the work along with some explanation or speculation on the significance of these conclusions. How do the conclusions affect the existing assumptions and models in the field? How can future research build on these observations? What are the key experiments that must be done? The discussion should be concise and tightly argued. Conclusions firmly established by the presented data, hypotheses supported by the presented data, and speculations suggested by the presented data should be clearly identified as such. The results and discussion may be combined into one section, if desired.

## 6. Conclusion

The Conclusion section restates the major findings and suggests further research.

## 7. Acknowledgements

People who contributed to the work but do not fit criteria for authorship should be listed in the Acknowledgments, along with their contributions. It is the authors' responsibility to ensure that anyone named in the acknowledgments agrees to being so named. The funding sources that have supported the work should be included in the acknowledgments.

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Clark, D. V., Hausen, P. H., & Mammen, M. P. (2002). Impact of dengue in Thailand at the family and population levels (abstract). *Am J Trop Med Hyg*, 67(2 Suppl), 239.

### **Books**

Author./ (Year of publication)./ *Book Title*:/ *Capital letter also for subtitle*./ Edition (if any)./ Location:/ Publisher.

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Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.

### **Article or Chapter in an Edited Book**

Author./ (Year of publication)./ Title of chapter./ In/ Editor/ (Ed.),/ *Book Title*/(pages of chapter)./ Location:/ Publisher.

#### **Example:**

O'Neil, J. M., & Egan, J. (1992). Men's and women's gender role journeys: A metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107-123). New York, NY: Springer.

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### **Editorials**

Author./ (Year of publication)./ Title of Editorial (editorial)./ *Journal Title*,/ Volume(Issue),/ Page numbers.

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Fisher, R. I. (2003). Immunotherapy in Non-Hodgkin's lymphoma: Treatment advances (editorial). *Semin Oncol*, 30(2Suppl 4), 1-2.

### **Journal Articles**

Author./ (Year of publication)./ Article Title./ *Journal Title*,/ Volume(Issue),/ Page numbers.

#### **Example:**

Leelawat, S., Leelawat, K., Narong, S., & Matangkasombut, O. (2010). The dual effects of delta 9-tetrahydrocannabinol on cholangiocarcinoma cells: Anti-invasion activity at low concentration and apoptosis induction at high concentration. *Cancer Investigation*, 28(4), 357-363.

- Polk, A., Amsden, B., Scarrrt, D., Gonzal, A., Oknamefe, O., & Goosen, M. (1994). Oral delivery in aquaculture. *Aquacult. Eng*, 13, 311-323.
- Seals, D. R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Advances in Physiology Education*, 23(1), 52-58.
- Srichandum, S. & Rujirayanyong, T. (2010). Production scheduling for dispatching ready mixed concrete trucks using bee colony optimization. *American J. of Engineering and Applied Sciences*, 3(1), 823-830.

### **Letters**

Author./ (Year of publication)./ Title of Letter./ *Journal Title*./ Volume(Issue)/Page number.

#### **Example:**

Enzensberger, W., & Fisher, P. A. (1996). Metronome in Parkinson's disease (letter). *Lancet*, 347, 1337.

### **Notes**

Author./ (Year of publication)./ Title of Note./ *Journal Title*./ Volume(Issue)/Page number.

#### **Example:**

Haier, R. J., Schroeder, D. H., Tang, C., Head, K., & Colom, R. (2010). Gray matter correlates of cognitive ability tests used for vocational guidance. *Biomed Central*, 3, 206.

### **Unpublished/In Press Articles**

Author./ (In press Year)./ Article Title./ *Journal Title*./ (in press).

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Veena, B. (2004). Economic pursuits and strategies of survival among Damor of Rajasthan. *J Hum Ecol*. (in press).

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Author./ (Year of publication)./ Article Title./ *Journal Title*./ Volume(issue)/ page numbers./ Retrieved mm dd, year, from the full URL of the web page

#### **Example:**

Adams, P. J. (2000). Australian economic history. *Journal of Australian Economics*, 5(2), 117-132.  
Retrieved June 12, 2001, from <http://jae.org/articles.html>

### **Internet non-periodicals**

Author./ (Year of publication)./ Article Title./ Retrieved mm dd, year, from the full URL of the web page

#### **Example:**

Lemire, D. (n.d.). Write good papers. Retrieved July 1, 2010, from <http://www.daniel-lemire.com/blog/rules-to-write-a-good-research-paper>

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