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Analyzing the Socio-Political Confucianism Influence on Reforms and Modernization of the Society of China

Nadia Helmy

（Faculty of Politics and Economics, Beni-Suef University, Egypt）

Abstract: This study primarily deals with the ancient Chinese reformer Confucius and his socio-political contributions along with political effects on the society and his impact on modernizing of the society. The paper is focusing on the "joint commitments" in Confucius's thought towards the Chinese community. There are different opinions about the personality of Confucius as he was a founder of religion as Prophet. While some scholars considered him as a social reformer and a philosopher or educationist. Confucius's teachings and ideas developed in the Chinese society. He tried to educate the people on good moral values based on social justice, politeness, equality, and respect for elders. He did not give much emphasis on religion because he considered religion as a tool of self-purity. Many people considered him a founder of the new religion in China during the 5th Century B.C. But after many ups and downs, Confucianism faced decline. The paper explores and highlights a brief analysis of the socio-religious and political role of Confucius and Confucianism after the revolution in Europe and Islam.

Keywords: China, religion, Confucius, reforms, modernization, influence

1. Introduction

The main principles in Mainland China are coming from "Confucianism", which is included the "religious, political, social and cultural" dimensions. The term of the "principles of Confucius", is here used to characterize a variety of explorations where the quest for "inner peace that leads to socio-political reforms and modernization of the society for the sake of the upcoming generations by enhancing and strengthening the political education of Confucianism", whereas echoes a concern for the individual or collective destiny (ancient liming) with its impact on modernizing the Chinese community and teaching the coming generations. To understand these phenomena better, our thesis examines an individual story that provides insight into what a Confucian religious experience may be today. This example is then placed within the context of shifting (political, social, religious, and cultural) categories, whereas the Chinese citizens are accepting and making a "self-evident" for every person in the Chinese society, but now being questioned by elites and other groups in society. Finally, to give a sense of various explicit projects oriented towards achieving recognition of Confucianism as an official and institutionalized religion, the article analyses three such efforts seeking to institute Confucianism either as a "religion on par with other official religions" as the "state religion with its political effects" or as "civil religion". For highly understanding, Confucianism has had the greatest social and political impact on modernizing the Chinese community (1).

But here it is difficult to cover Confucian personal life to reach out to the stages of his influences on the different periods of generations of China because there are not many works have been done on his biography. This Semitic historian, who lived from 85 BC to 145 BC, described the life of Confucius. His childhood was spent in poverty. He made his career as a philosopher and teacher. He started teaching at home at the age of 22 and soon the number of his students reached hundreds. He made history, philosophy, poetry, and ethics the focus of his educational activities, which were contributed to modernizing Mainland China, and drew out the basics of the socio-political modernization by teaching the coming generations of the principles of Confucius and his doctrines (2).

Confucius has successfully created a modern society in China by providing the (main principles of the ideal relationship between the ruler and its citizens). Confucius has made a minister by the ruler of the state of Lu and was given the responsibility of eliminating crime and contributing to modernizing the Chinese society by his modern thoughts. Afterward, Confucius has strengthened the state of China through many

reforms. Confucius divided the relationship between the government and its citizens, whereas the ruler should be under the influence of its people and Confucius encouraged to manage the social and political relations between every individual in the society, so he has left his post as a minister in the official government. He continued to propagate his ideas. He wrote many books, such as music, book of etiquette, the art of poetry, book of documents, book of spring and autumn, history of court Lu and destiny, etc., all of Confucius's teachings are the main recent bases of reform and modernizing of the Chinese society (3).

The Egyptian researcher is attempting in this paper to explore the history of the cult at different periods as a part of a larger project on the "revival of Confucianism" in Mainland China. This is followed by a factual description of the (political, social, and cultural) effects by Confucius in the Chinese community until now and taking place during the so-called "Confucius dimensions" which provide insight into the complexity of the issue and the variety of situations encountered. The contrast between the authorities and folk (minjian) Confucian revivalists, as well as their necessary interactions, ultimately illustrates the complex use and abuse of Confucius in post-Maoist China (4).

This study is mainly dealing with the political thought of Confucius and aimed to shed light on the importance of the political thought of Confucius and its characteristics and distinction, and concluded that Confucius believes that "the crises of the nation are due to the ruling authority, and that to establish a just and stable system of government, the only way to do so is to adhere to the rites, etiquette, traditions and virtuous morals" (5).

The ideas of Confucius were a true knowledge-based on honesty, accuracy, and clarity, as are the main bases for reforming the political community and is the path leading to virtuous morals. Accordingly, politics according to Confucius is based on morals in the society that lead to the modernization of Chinese society and contribute to socio-political teaching for the different generations.

2. Research Problematic

Traditional Chinese culture, for which "Confucianism" is the core, has a long history of thousands of years, and it has gradually become an "indispensable component of the Chinese humanistic environment". Modern Chinese community and institutions may be affected by Confucianism and the current arguments and trends of "reviving Confucianism in the face of American and Western liberal values".

But "that's not clear to minds of the potential effects of Confucius ideas and its validation to Contemporary China, especially its implications on the young generations, additionally, the conflict with the Communism ideology itself, and the deepest contradiction with the "liberal democratic Western values".

So, our main concern is the attempt to "test the potential scenarios of the impact of Confucianism on the performance of the Chinese modern society and its people", notifying that "Confucianism" does not reject wealth and even has positive significance for building wealth. Therefore, the Confucian concept of wealth and the method used for wealth building may affect the "ability of the state's behavior and decision-making".

So, upon our analysis of the main problem behind reviving Confucianism in Mainland China, the Egyptian researcher will refer to some empirical and qualitative methods to test the results of applying "Confucianism" and its significance for improving the society's performance and institutions.

3. Research Methodology

This is an "analytical study and based on qualitative data", therefore the historic method of research has been used with documentary sources of primary and secondary sources i.e., books, articles, essays, and columns of newspapers, etc.

The Egyptian researcher will use and adopt the "empirical methodology of measuring the data", by focusing on two models of measuring, to test the recent influence of Confucianism on the Chinese modern society, which are: (1) The first one is a "regional model"; (2) The other is a "distance model".

Currently, the widely used model is the "distance model". The greatest advantage of the "distance model", is that it can use the whole-level data to determine whether the explanatory variables represent the research object itself, eliminating the influence of other factors.

4. Review of Literature

Literature is an important component of any research and therefore different types of scattered literature and worked of several historians and intellectuals has been considered important for this research i.e. History of Religious Ideas, World Faiths, Taoism, History of Chines Philosophy, The World Religions, The Eastern World's Philosophy, Chines Religions Through Chines Society, Encyclopedia

Britannica-Confucianism, Confucius, The Thought of Confucius and the Contemporary World, The Image of Confucius in China, An Interpretation of Confucian Virtues and Their Relevance to China's Modernization, Confucianism and the Modernization of China, On the Problem of the Self in Confucianism, Confucianism in the Republic of China are most remarkable.

So, upon these facts about the role of Confucius in Socio-Political Modernization of China, the Egyptian researcher will address and analyze the following aspects to respond to the main questions resulting from this discussion of "Confucianism",

4.1 Analysis of the influence of Confucius life on the Chinese political and social ideas

The true picture of the life of "Confucius" is not available from any one source. It is difficult to answer this question who was Confucius? The main reason is that as his ideas and thoughts gained popularity, people started talking about his founder. Traditions and anecdotes continued to formulate and sanctify it. His official biography, written hundreds of years later, was adorned with the color of devotion and love that embellished the real events and was eventually adopted by his abusive followers given him the status of a semi-god (6).

In Chinese tradition, Confucius' entire life is described in different periods, but this does not prove that he was religious. Even though these events are historically considered dubious, they are still an important chapter in his life. Western scholars believe that if he had taken a royal job and held a high position, this should have been mentioned in his advice book, the Analects of Confucius. But this is not the case. On the contrary, we do not find evidence that he compiled a book during his tenure in which he recorded his thoughts and ideas. Which shows that he had confidence in his abilities and performance? Therefore, some critics believe that he resigned in his last life after a modest job in Lou, as he began to be tired of "the corruption and chaos of the covenant". However, Confucius has successfully made some people are his allies (7).

4.2 The influence of Confucianism periods of life on the Chinese political and social ideas

4.2.1 The "Confucius era" is the golden age of China's intellectual creation

When this era was born, political and social chaos was common in China. Small rulers took advantage of the weaknesses of the royal family to occupy territories. And the exploitation of the people continued. Internal turmoil had weakened the country's internal borders to such an extent that each feudal lord could occupy the

territory of his choice and establish his rule. These feudal lords were so corrupt that the people, despite their poor handicrafts, had a long period of social, political, and intellectual creation. These hundreds of great philosophers are divided into six Meccan thoughts, such as: Taoism, Confucianism, Mohism, Yin Yang, Dialectician, and legalism.

4.2.2 Confucianism was given an "official religion"

In the second century BC, Confucianism was given an "official religion", and this superiority over other schools of thought was recognized just as there is disagreement among scholars about "Taoism", the continuing arguments of "whether Confucius was a religion or merely a matter of philosophy and thought?", so too there are differing views of the authorities on Confucianism. Yes, it is a common practice to call the founder of a religion or philosophy a prophet or a messenger. Possibly it is wrong to call a philosopher or a reformer a prophet and a messenger and a bearer of revelation and a book when he does not have his claim, or it is not proved by the time (8).

4.2.3 Confucianism is a philosophical system

Scholars who consider Confucianism to be a philosophical system argue that religion has neither a religious institution nor a system, nor is there any punishment for obeying or rejecting a command. He also said that those who support the idea that it is a religion are often asked if it has prohibitions and denials and if there is any concept of life after Muhammad. When asked if these concepts exist in almost every religion, those who call Confucianism a religion argue that it contains religious elements, such as the worship of the Great, the reverence of heaven, and generality. The existence of rituals and temples are matters that prove it to be a religion.

4.2.4. Confucianism contains religious elements

That there are religious elements in it, such as the (worship of the great, the reverence of the heavens, the general rituals, and the existence of temples), which are all matters that prove its religion, but it is said that the temples of Confucianism are but these are just monuments. They are not temples like other religions. Despite all these arguments, it can be said that the Chinese people consider Confucianism to be a belief that can be either endorsed or denied. According to him, it is a code of conduct that covers political, social, moral, and spiritual matters. There is no denying that Confucius taught ethics, which led to the establishment of political and social relations and the way of life. Ruled on principles. In this sense, even if there is no religion in the traditional sense, there are so many

elements of religion in it that it is not possible to ignore them altogether (9).

4.2.5 The theory of people's sovereignty

The Chinese reformer "Confucius" believed that "power is subject to the consent of the people", and thus "Confucius" was the first thinker who advocated the "theory of people's sovereignty", and says that: "The state is governed by the one who obtains the consent of the people, and the government loses the one who loses this satisfaction because the measure of the legitimacy of power is the people's satisfaction with their destiny". Here, Confucius as well used to repeat in his writings that: "The sky is seen, but it is seen by the eyes of the people, and the sky hears, but it is heard by the ears of the people", adhering to his old saying: "The voice of the people is the voice of God".

4.2.6 Three goals for the good government

Confucius also studied the existence of government and believed that good government must achieve three goals, which are the following: First taking care of production and fulfilling the people's need for food and other necessities. Second, taking care of the army to protect the country from the dangers of foreign invasion. Third, taking care of people's morals and advancing religious worship (10).

4.2.7 Distributing wealth equitably

Confucius also called for the necessity of distributing wealth equitably and not concentrating it in a few hands, which leads the poor individuals to migrate to the cities and leave agriculture in the countryside. The following chart (see Attachment 1: chart 1) is trying to identify the powerful nature of the "Confucius Values in the Political Sphere of China".

This chart is examining the "impacts of Confucian values on each area in China". The results show that "there was no evidence that Confucian values inhibit the Chinese public's support for democracy in a democratic transition, but they are negatively connected to liberal democratic values", which are fundamental to the resilience and consolidation of a fledgling democracy. However, "liberal democratic values are prone to increase with the generational shift".

4.2.8: Eliminating wasteful privileges

Confucius appealed to presidents and rulers to stay away from spending and extravagance, and therefore wasteful privileges must be eliminated, such as the rulers and officials increasing their salaries and financial privileges without law, because this burdens the people with taxes that they are unable to bear (11).

So, according to our understanding of the influence of Confucius's political and social ideas, the Egyptian researcher considered that Confucius is the most influential philosopher in Chinese history, and the teachings of Confucius remained a strong and unique impact on Chinese society throughout the period from the second century BC until the twentieth century AD, and these teachings called Confucianism Emphasizes the need to develop moral character and expand responsibility. The Chinese government has made Confucian teachings the official philosophy of the state. Indeed, millions of people in China and nearby countries, such as Japan, Korea, and Vietnam, venerate Confucius in the same way that people revere the founders of philosophies and religions.

4.3 The impact of Confucianism on the social and political reforms in China

Confucius believed in the importance of social and political reforms, teaches everyone to live within certain limits. Confucius believes in treating people well and holds the individual responsible for his actions. He believes in destiny and preaches that we should do things that can keep us alive in society. He calls the sky nature and makes it clear that nature wants to use you. He says to rely on your ancestors and respect their literature and treat them with love. He taught compassion, justice, and simplicity in society and said to treat people well as you want for yourself. And if you want to be successful, help others to be successful (12).

He thought that one should be aware of the behavior of the forefathers. He rejects anger. Goodness and cheerfulness are part of his teaching. Being humble in his mind is a steppingstone to success. As he says it is not a pity that I have not been understood, but it is a pity that I have not been able to understand others correctly. Says on one occasion, if we do not understand life, how can we understand death? How can we understand our duties towards men when we do not understand our duties towards the living? Confucius was anti-tolerant and pro-struggle. He taught society moderation and insisted that religious observances were necessary for self-control (13).

The ideas of Confucius to reform Chinese society politically and socially can be summarized in the following seven components.

First, Confucius believed that his society could survive if it observed sincerity in individual and public behavior, and the entrance to a disciplined social life was the honorable master. And he is expected to think for himself, guided by specific rules of behavior, and Confucius put many of these rules in the form of sayings.

Second, Confucius believed that when gentlemen are rulers, their moral model will inspire the ruled to

lead a good life, and he also showed that the virtuous behavior of rulers has a greater influence in governance than the set of laws and punishments.

Third, Confucius provided political and social thoughts in reforming and modernizing local cultures in China and the world with his ideas and contributions in his books, including The Greater Teaching Book – Songs – The Creed of the Middle.

Fourth, in the first book " Greater Teaching Book", Confucius presented the causes of wars, and attributed them to the corruption of government, considering that the positive laws on which the system of government is based cannot – no matter how many and varied – replace the natural social system that the family is supposed to prepare. Family reform prepares the country on its own a social system with it, it will be facilitated by the establishment of a righteous rule, and by the state maintaining calm on its land, and its adherence to justice throughout it, peace will prevail throughout the world (14).

Fifth, in the Book of "Songs", Confucius records a dialogue about society and governance, and at the beginning of the dialogue defines the mission of any government and highlights its role in achieving three issues, that people have: a. their sufficiency of food ; b. their sufficiency of military equipment; c. confidence in the rulers.

Sixth, Confucius holds that in case of extreme necessity, war materiel, and then food, can be abandoned, but if individuals do not have confidence in their rulers, the state will not survive.

Seventh, in the book of "The Doctrine of the Middle", Confucius presents the practice of governance, as he sees that the conduct of government affairs requires that it be entrusted to righteous people, and there is no way to do that unless the ruler is righteous, and Confucius believes that if morals are corrupted, the whole people will be corrupted (15).

So, the Egyptian researcher understood that Confucius' political philosophy derived its material and mainstay from morals. Ethics was his lofty goal and desired goal. Because he witnessed for himself the chaos and turmoil of Chinese society resulting from the weakness of the moral motive, following the rule of feudal lords and the spread of wars among them. And he saw Confucius There is no way to eliminate this chaos except by reforming the family system in Chinese society, because of his belief that the basis of a healthy society is the organized individual in the organized family. Confucius considered politics as part of morals, and it is based on self-discipline and purification, but this is not done only in his view, but with knowledge and education, that leads to the reformation of the society.

4.4 The influence of Confucianism on the political identity in modern China

Researchers believe that the Confucian spirit will change the features of communist identity in the state of China, making it far from the Russian communism that collapsed, because Confucianism has a "spiritual control over the Chinese people" (16). So, the Egyptian researcher can identify some features of Confucius on the Chinese political and social identity, which can be summarized into the following seven aspects.

First, Confucius thought that "the ruler should be self-controlled and present him to the people in an exemplary manner to protect and maintain the state's identity". The ruler should take care of the people and prove to be a lover of the people. Confucius confirmed that the "government cannot be ruled by law alone and because the people try to avoid punishment in this policy and do not feel ashamed". Therefore, the government must be formed based on goodness so that the people have the "standard of reform on the basis of good manners to maintain identity".

Second, Confucius pointed out that "the weak institutions of the state in his time may affect the nation's political and social identity" and held the rulers responsible and made it clear that if the rulers were incompetent, the subjects would not follow them. People will like and imitate the right conduct of the ruler. He thinks that the moral character of the ruler is like the wind while the subordinates are like grass. When the wind blows, the grass bends. The political ideology includes that the king should have attributes and he should appoint people of opinion and knowledge and grace as advisers and follow their advice. The ruler should show an ideal role. Don't be arrogant and bring about reforms for the betterment of the people, as exemplified by the ancient Chinese kings "Yao and Xun", who were great but not arrogant and were always ready to listen to the people (17).

Third, although Confucius is not the founder of any religion, he has been seen "correcting the religious and social flaws in the society's identity". People called him a religious figure and the founder of the religion. And his teachings spread throughout China, because in 195 BC, when a Han king came to his tomb and offered sacrifices for his soul, Confucius's value and prestige took four moons and his devotion took the form of a "national religion as an identity of modern China throughout its coming generations". Confucius's

philosophy became the national religion and belief within modern China.

Fourth, accompanied by a few of his followers, Confucius spent the last ten years of his life in the aristocracy and the royal court, expressing his views. He went to the northern parts of Chi, where he barely survived. However, he was not alarmed by the situation and his enthusiasm did not diminish. After completing his mission in the north, afterward "Confucius went with his followers to the south of China and affected its identity by his explanations and ideas" (18).

Fifth, according to Chinese traditions, Confucian ideas and advice were "well-received in some places as a part of its identity", especially when Confucius presented his suggestions on government policy to the people. He also claimed that if his political views and suggestions were followed, extraordinary social change could take place in three years. But who did not listen to him? After constant tourism and meetings with feudal lords and nobles, when no results came out, he became frustrated and returned to his homeland. Over the next five years, he began teaching people five classic religious books. Here, "Confucius produced many disciples and followers, so, the coming generations and governments in China have affected by Confucius".

Sixth, some of "Confucius's followers held high government positions, some set up schools to spread Confucian ideas that influence of the People's lives and state's national identity". Confucius died in 479 BC at the age of 72 years. He passed away as a failed and unsuccessful gunman and philosopher. It is the life story of a man who is considered a great philosopher, religious leader, and political weapon in Southeast Asia.

Seventh, although the upper class did not listen to Confucius, he continued his mission. With his dedication and hard work, he made many people his allies. Confucius "emphasized the importance and necessity of education to his students to maintain his ideas in the Chinese community". He was called "Sage", because of his intelligence and diligence. Although he considered himself a failure, notifying the "Confucius success lies in the fact that there are still many his followers, a chain of love and devotion to him, and people consider him the great man of China. Wise, reformers and religious leaders understand that formed the recent modern identity of Mainland China" (19).

Upon the mentioned analysis of the role of Confucius to affect China's identity by his thoughts, the Egyptian researcher has analyzed that Confucius was fond of seeking to achieve the utopia he called for, which is an ideal city to form the identity of the state itself, but it differs from Aristotle's virtuous city, as the city of Confucius is ideal within the limits of a reality that can be achieved and applied, while the city of Aristotle tends to an imaginary ideal far from the level of minor human application. Both philosophers are contemporary.

4.5 Confucianism and the Political and Social Teaching and education in modern contemporary China

The original teachings of Confucius are not available, but a collection of theories and political ideas attributed to him has been studied from many angles in Modern China and within the Chinese universities, and a lot of Western thinkers have written about it and tried to educate a brief introduction of Confucius's beliefs and ideas. The Egyptian researcher has identified the major sources of information about the Socio-Political thoughts of Confucius, as the following eight aspects:

First, Confucius' philosophy was not limited to the moral aspect only, but also "transcended it to the political aspect, and his philosophy was based on a set of principles and teachings, the aim of which was to reform the individual and society". With the government, the ruler has a gift from heaven, but this gift is only for those with virtuous morals (20).

Second, Confucius also established a "set of qualities that make the ruler a good ruler", among which we mention that the ruler should have morals, respects individuals, treat them kindly, advance them and their state, and achieve prosperity for them. He also emphasized that the "trust of the subjects in the ruler is the basis of governance".

Third, Confucius also laid out a path for the ruler to gain the trust of the subjects by displaying virtue and good morals. Confucius divided governments into two categories, which are: a. good government: guarantees the happiness of the people; b. corrupted government: due to the bad faith of the ruler and the lack of his political qualifications (21).

Fourth, Confucius is the fair exploitation of wealth within society and the respect and protection of property rights. These political teachings are political theorizing that can build a strong and cohesive society. These ideas have had a great impact on many civilizations and thinkers and contributed to the development of many societies.

Fifth, Confucianism has called to avoid "favoritism in mediation or favoritism". The morals of the ruler appear in, according to Confucius social and political reforms, representing in a. respecting individuals who deserve to be respected; b. being

courteous to those with whom he is related and fulfilling his obligations towards them; c. treating his ministers and employees kindly; d. his concern for the public good, while encouraging and promoting the beneficial arts; e. kindness to the nationals of other countries residing in his country; f. achieving prosperity for the princes of the empire and the common people of it (22).

Sixth, Confucianism respects the "inherited customs and traditions". They are very conservative, they sanctify knowledge and honesty, and they respect soft treatment without submission or begging for tyranny.

Seventh, Confucian society is based on respect for an individual property with the need to draw up a "reform program that leads to the development of the spirit of love between the rich and the poor". They acknowledge the differences between classes, and this is evident when performing religious rites, on official holidays, and when offerings are made. They have an open caste system, as anyone can move from his class to any other social class if he has the capabilities that qualify him to do so.

Eighth, according to Confucius's teachings, Man is only a result of the intermarriage of the heavenly powers with the earthly powers, that is, the "reincarnation of the heavenly spirits in the essences of the society ". Hence, man must enjoy everything within the limits of upright human morals (23).

So, according to Confucius's previously mentioned teachings and ideas, the Egyptian researcher has analyzed that, Confucianism overcame and triumphed over "communism and socialism" in the two centuries before it. It was also able to fuse Buddhism with the Chinese Confucian mold and produce a "special Chinese Buddhism distinct from the original Indian Buddhism". Confucian beliefs are still "present in the faith of most contemporary Chinese, despite the political ideology of Communism".

5.   Confucianism and the "Main Modern Principles" of China's Political and Social Cohesion

Confucius described the need for a social and balanced family and solidarity in society, by his explanations of the relationship between social and political ideas in the Chinese community.

The husband should respect the wife and the wife should be loyal to the husband. The father should have compassion for the son and the son should be obedient to the father. Thus, "Confucius has applied these principles to other relationships, even to friends, and in the broadest sense, to rulers and subjects". These duties are called the "main relations of Confucius" (24).

Here, the Egyptian researcher will discuss and analyze the extent that Confucius has affected China's political and social cohesion, as the following:

5.1 The relationship between Confucianism religious code on the political identity in the Chinese society

Confucius emphasizes honesty and good manners in religious doctrines, not stating a single religious doctrine. But he also disagreed with many of the things he called superstitions. He remained silent about the existence of spirits and the existence of invisible forces. He only said that it was better to understand the purpose of life on earth and not to waste one's energies on idle fantasies (25).

Taking into consideration that Confucius didn't claim to be serving the soul unless he knows how to serve humanity.

5.2 The relationship between Confucianism and the political sovereignty of China

Obedience to the universe and this confidence encouraged Confucius to realize a purpose and, on that basis, he outlined a way to reconcile with the universe. He set out a way of life for rulers and emperors. It was said that a ruler rules the universe under his sovereignty. If he is not qualified to do so, then this sovereignty is transferred to others. He should focus on the principles of the universe. Confucius acknowledged the payment of the rites but valued the person's internal conduct as superior to the outward appearance (26).

Here, the Egyptian researcher finds that Confucianism has strongly criticized the performed rituals with great pomp and ceremony. According to Confucius himself, the purpose and sincerity of a person is the "soul of a ritual".

5.3 The relationship between Confucius's socio-political teachings, commandments, and scripture

A long collection of Confucian teachings, commandments, exhortations, attributed holy books, and a large collection. This great collection covers a long period from the second century BC to the twentieth century AD. The people who became acquainted with the important book of Confucius and its commentaries and their scholars were given high positions by the royal families of China. A royal university was established in the 5th century BC (3 BC to 5 AD) to popularize the teachings of Confucius. The popularity of this university can be gauged from the fact that at that time the number of students was thirty thousand (27).

The number of Confucius' sacred religious books is not known. In the "Han period", there were nine of

them, including (five classic books) mentioned earlier, and four other philosophical books.

These books shed light on various aspects of Confucianism, including its philosophy, ethics, social relations, and various elements of interpersonal relationships. The most important of these four books is "Ming Zu". Confucianism numbered thirteen, including five traditional classics, four later books, and four later holy books.

These books describe the "general aspects of the teachings and philosophy of Confucius". In some places, modern interpretations of them have been recorded and they have been given precedence over the teachings of Confucius by comparing them with other teachings of the time, especially Taoism. Buddhism had gained popularity in China. Buddhist teachings, philosophical ideas, and ideologies were also criticized. In the "Stone Age" (4-5 AD), the philosophers of Confucius re-arranged five classical and four later books (28).

The historical validity of these thirteen books of Confucianism is doubtful and the idea that all the books were compiled by him is not acceptable to modern scholars, although traditionally the followers of Confucianism are considered sacred. Doubts about Confucius's books are further claiming to strengthen the fact that the first five classic books of Confucianism were burned during the reign of the "Chen dynasty" (7-8 BC). Because it was not practically possible to rewrite and revise these books, some scholars consider them to be counterfeit books, reflecting the views of the philosophers of the time (29).

The Egyptian researcher has concluded that "Confucianism is still represented in the social systems of China's modern cities". It also spread in Korea and Japan, and it is one of the "main foundations that constitute ethics in most of the countries of East and Southeast Asia in the medieval and modern eras". Confucianism was appreciated by some Western philosophers, such as the philosopher "Leibniz" (1646-1716 AD) and "Peter Noel", who published the "Confucian Classics book" in 1711 AD. Confucian books were also translated into the most European languages, whereas we can highly understand that the Confucian's doctrines and ideas are a "main source for political and social cohesion in modern China and the other Asian regions, besides some other world nations".

6. The Prominent Implications of Confucianism on the Guidance of Future Generations of Modern China

Confucianism was born out of a time when political and social dissatisfaction was common. Feudalism was a period of self-interest. So, the Egyptian researcher has analyzed the main implications of Confucianism on the coming generations of China, as the following:

First, Confucius continued to spread his teachings and ideas. The words of the ancient thinkers of Confucius's philosophy revived some of the basic concepts that were the lifeblood of this philosophy (30).

Second, moral education occupies a central place in the "Confucian educational system", while education in other fields occupies a secondary position.

Third, Confucian thought is considered the "first systematic thought" in the history of Chinese culture for the generations of China, and it's an attempt to revive the ancient Chinese proverbs concerning the traditional principles of Confucius.

Fourth, Chinese Confucianism traditional culture "flows like the waters of a river flowing for thousands of years", but it did not flood the riverbank established by Confucius (31).

Fifth, basically, the new generations in China have learned some principles of Confucius, regarding treating others politely, especially parents, brothers, and sisters, which are the "moral principles, education and politics" of Confucianism, which formed a "complete system established by Confucius, and these ideals became the goal sought by the Chinese generations after every new generation". Chart 2 (please see appendix2: Chart 2) will show us the "percentage of awareness among the Chinese new generations of academics towards the significance of reviving Confucianism" and the old Chinese traditions of Confucius among the young generations and academics.

Chart 2 is showing us the "awareness of reviving Confucianism and the Confucian traditions among the Chinese young generations and its academics throughout their writings about the Confucianism", the final results show us that the Chinese intellectuals have begun to "link Confucianism with China's social and political realities in recent years" and viewed Confucianism (or certain of its elements) as remedies for social and political anomalies unleashed by China's modernization process. Confucian discourses during the recent periods have largely gone beyond academic interpretations of "Confucianism" at large, which was the common pattern during the 1980s and 1990s. Some of the discourses argue for (rehabilitation of the Confucian social order and even contain strong political appeal).

Sixth, the recent dilemma of China is that after

years of the era of reform and opening-up, China's young people prefer Western culture and few of them read the "Confucius Dialogues. So, the Chinese authorities and government now are prompting to hold celebrations to commemorate Confucius birth from his hometown to all over the world with the aim of "highlighting the diversity of traditional Chinese culture and restoring spiritual faith".

Seventh, Chinese recent Confucianism is being Chinese modern response from China as the world's most populous nation against the "Western culture's invasion" of traditional local cultures in the process of globalization and the response to the spiritual crisis faced the Chinese nation and its "China's affirmation of its cultural identity, in favor of its coming generations and the young people within China" (32).

Here, the Egyptian researcher can analyze this issue by saying that: "Unlike Mao Zedong, with his cultural revolution, which destroyed and marginalized those legacies, since the eighties of the last century, China is returning to itself by reviving the ideas and thoughts of Confucius, drawing his spirit from its inspiration, who has been set aside for a long time". The researcher can as well explain this need for Modern China now goes back to Confucius's teachings, not for worship and sanctification, but for his help in "drawing up its human features, morals and values, and its path among nations that may help the coming generations and the young people to restore their roots and old traditions for their battle in the future".

7. Confucianism and the Political and Social Modernization of China

Chinese political society also went through various ups and downs, and when the rule of the "Qin dynasty" came to an end, so did the ancient classical Confucianism. Here, the Egyptian researcher is attempting to draw up the main contributions of the Socio-Political Modernization of Mainland China, by focusing on:

First, in a short period of time, we have noticed that the "political measures severely damaged Confucianism and led to its decline". It was during this period that the Great Wall of China was built, and new political upheavals arose, and political tensions played a "key role in eradicating Confucianism" (33).

Second, on the contrary, Confucianism was largely suppressed. One of the thoughts of these people was that the people are only members of the state, and they have no feelings of their own. Such wrong and ruthless thinking led to the degradation of society. These people

"aren't only inflicted atrocities on the supporters of Confucianism, but also wiped them out". Thousands were buried alive, and books were burned, and all were wiped out. These events occur about 231 BC.

Third, similarly, after the fall of the "Qin dynasty", Confucianism was revived during the "Han dynasty", and despite imperial patronage, we find that "Confucianism was threatened by its anti-Taoist ideologues and preachers".

Fourth, due to the "decline of the Han dynasty" in the second century AD and the military's takeover of the government, it was resulting in "the success of Confucianism to be ceased and accepted in Chinese society for centuries", due to, political turmoil, although the different attempts to be pushed into the background (34).

Fifth, afterwards, the "Sui dynasty" once again tried to revive it in its period around 618-590 AD, but it did not gain that popularity and it did not get that height. The "Sui family" also patronized Buddhism. After the "Sui Dynasty", when the "Tang dynasty" came to power, it patronized "Taoism" and claimed to belong to the "ancient Laozubani dynasty".

Sixth, as Buddhism grew in popularity and new ideas emerged among the people, Confucianism became the belief of only aristocrats and scholars, and its value among the masses began to wane, and "Taoism also introduced Confucianism". Despite the traditional opposition to the full propaganda and fabrications spread, still, its unique status remained (35).

Seventh, Confucianism survived as a "new era began in changing economic conditions in Modern China". From the time of the "Stone Dynasty until 960 AD", when China entered the democratic era, the influence of Confucianism in China remained to some extent on Chinese society.

Eighth, under the influence of Buddhism, many natural elements and hidden mysteries and sciences were also introduced, as what happened with Confucianism.

Ninth, in addition "Confucianism was exposed to the influences of Christianity and Islam". The influences of these two divine religions also influenced Chinese social foundations, but their impressions were not very profound. Similarly, "modern Confucianism" spread from China to Japan and Korea (36).

Tenth, even today, "pro-Confucian philosophers have not acknowledged the effects of Western civilization and cultural development" and have embraced the social and religious traditions that have sprung up in their homeland.

Eleventh, if we consider that the "supporters of Confucianism" have adopted it as an active philosophy and belief and adopted the method of adhering to the ancient traditions and values of the people which led to its survival.

Twelfth, founded the "reform movement to keep China safe from Western influences while adapting to modern requirements". Confucius is said to have been a reformer and modern thinker and the author of five classic works. He found the founder of a religion in his own way. He proposed the establishment of a Chinese shrine to the then-Chinese king. But he did not respond. Then, he asked the Chinese parliament to "introduce Confucianism as the official religion". But, failing to do so, he launched a 100-day reform movement.

Thirteenth, after the "Meiji Revolution", Japan took an economic and political turn, and after the constitutional monarchy, the city of reforms reached China. So did the King's government. While Dr. Sun Yat-sen was struggling against this government, both constitutional and revolutionary groups appeared to be in favor of "China's political and economic development and modern system" (37).

Fourteenth, in 1911, there was a great campaign against Confucianism in China. And people influenced by modern education staged demonstrations on May 4, 1911, demanding the "abolition of the philosophy and doctrine of Confucianism", which negates the new demands of modernity and scholarship, and democratic thinking. And his philosophy was rejected by the family.

Fifteenth, Confucianism called it, "the root of dictatorship and the epitome of all anomalies". He called it the greatest obstacle to the modern Chinese state and its development. He called it the skeleton of a thousand-year-old dead man. Confucius is said to have died and his teachings have been distorted.

Sixteenth, despite this vigorous movement, Confucianism roots could not be eradicated from within the masses, and it is present among the masses in one way or another and there are still thousands of followers of Confucianism (38).

The Egyptian researcher here looks at the experience of Confucius of modernizing China, as he didn't claim a prophecy, although he was elevated to the ranks of deities in some periods. He is a humanist before anything else. In his famous dialogues, the first word is "learned". A commandment is seen in present-day China as a savior from error. The most important thing you must learn is to "be human". This is not a gift that we inherit or that we are born, and it is from the dough of our nature, but rather a ladder that we rise and

experience, in the company of others and with at least one other person. There is no humanity in the singular, according to the "Western pattern", but rather it comes to us from an act of meeting, carving, and experiencing with the other.

8. The Political Contributions of Confucianism on the "Revolution of Sharing" in China

The greatest pressure on Confucianism was "directed at communism". From 1925 to 1949, supporters of any ideology in China, especially the "Mao Zedong Revolution", were "strongly opposed to Confucianism" (39). So, the Egyptian researcher is focusing on the main contributions of Confucianism in expanding the principles of "sharing" in Mainland China, as follows:

First, the Western scholar "Luftwaffe" described it as a reactionary, not a philosophy, and Confucianism as a reactionary and utilitarian class. We find that "Mao Zedong" and his comrades laid the foundation for a cultural revolution to kill anyone. Consultation can lead to the "formation of new cultural values" (40).

Second, on May 7, 1958, at the Second Session of the Eighth National Congress of the Chinese Communist Party, we can find that "Mao Zedong" praised the Chinese "King Qin" for "rejecting the ethical and ideological conventions of Confucianism". He said that he was a resourceful, understanding person who preferred the situation to the situation. He liked the actions in running the books of Confucianism and burying the clerics alive. Mao Zedong said that King Qin had buried 420 scholars alive. We have buried 42,000 scholars alive. We have crushed the reactionaries. Have we defeated some of the enemies of the revolution? Not cleaned (Mao Zedong) discussed the issue with junior officials of the Democratic Party and said: "Our people call us 'King Qin'. It is not true. We are a hundred times more than that" (40).

Third, the period of the "Chinese Cultural Revolution", was marked by (sharp criticism of Confucianism), as well as the emergence of new trends that continue to this day. Those who are against communism in Confucianism should be eliminated and society should be built based on those who support it.

Fourth, however, Confucius' view of women is completely rejected, because (Confucius didn't recognize women's independent status). But Confucianism is very popular among them because it is a "capitalist system", so both "Confucius and Manchester" did not oppose "private property".

Fifth, the teachings of Confucianism, the

distribution of wealth, moral values, and the idea of social relations are considered a step towards progress. After the communist revolution and the popularization of Marx and Lenin's ideas, it was a "very hostile atmosphere was created in China against Confucianism". Although some people are still convinced of the usefulness of these views, these beliefs do not work per se. For those who believe in the philosophy of communion, religion or belief is of no importance (41).

Sixth, Confucius based his fine moral judgment, not on the ideals that tampered with China and the whole East, but on the (good knowledge of dealing with reality, taming it, understanding it, absorbing it, dealing with it freely from prior decisions). This is one of the secrets of "modern China", and the dynamic thought may be behind the strange innovation that has baffled theorists, such as: "socialism with Chinese characteristics". The term was mentioned by the president Xi more than ten times in his historic speech.

Seventh, Confucianism can be described in market socialism, openness Marxism, and you can mix whatever you want with what you want, if it leads you to something better and higher than intellectual vitality, does not come from a vacuum (42).

Eighth, the main target of Confucius is reaching out to the "harmonious society" as the main goal that must be reached in Modern China.

Ninth, harmony, according to Confucius is not only between humans but also between man and nature in the first place. Nature's wrath can be devastating.

Tenth, according to Confucius "intelligence, is in finding solutions by borrowing from abroad when necessary", but the final formula is extracted from the reconciliation of this borrower with the inheritance, with beliefs that China has lived through for thousands of years and discovered that it will not reach salvation by divorce with it, but rather by the harmony of its past with the times (43).

So, according to our understanding of the mentioned above points, the Egyptian researcher has concluded that Confucius based his moral judgment, not on the ideals that tampered with China and the whole East, but on the "good knowledge of dealing with reality, taming it, understanding it, absorbing it, and dealing with it freely from prior decisions". This can be abbreviated with the modern Chinese statement of "socialism with Chinese characteristics". The term was mentioned by the president "Xi Jinping" many times in his popular and political speeches and discourses. Confucius is in the "idea of sharing", which includes

market socialism, openness Marxism, and you can mix whatever you want with what you want, if it leads you to something better and higher.

The revolution of sharing, according to "Confucius" is also indicating to "harmonious socialist society" as a goal that must be reached in the modern Chinese community.

9. The Conclude Remarks

Our study is dealing with the political thought of Confucius and aimed to shed light on the importance of Confucius's political thought in the Chinese modern society, its characteristics, and distinction. So, the Egyptian researcher has concluded the following results of spilling over the Confucianism throughout modern China and its coming generations and the world, by achieving the following targets:

First, the principles of Confucius have become very popular within Modern China because his ideas are based on the "virtuous morals, and that true knowledge based on honesty, accuracy, and clarity", as the main basis for reforming the political community and is the path leading to (virtuous morals). Accordingly, politics according to Confucius is based on morals.

Second, it is concluded with this reality of Confucianism that it is very clear that Confucius was a great intellectual and social reformer). He was not a founder of any religion. It is also clear that he did not bring any major revolution in his life, nor did he succeed in bringing about a revolution in the society of China in the ancient time.

Third, long-term after his death, we can notify that Confucius's socio-politico thinking has greatly influenced China's Socio-economic, religious, and political modern life in China. He was considered the greatest man in China and his books began to be read in Chinese institutions. This conservatism, love of social values, the greatness of ancestors, and moral qualities were accepted in Chinese society.

Fourth, in the modern time Confucianism has almost succeeded to affect the modern socio-political thoughts of socialism and capitalism, due to its shining principles of morals and values that have influenced Chinese modern society as Sinkiang and many other areas.

Fifth, for his prominent implications, Chinese modern authorities have opened many Confucius Institutes everywhere in the world as a non-profit educational institution established with Chinese and foreign cooperation, and the main tasks of modern Confucius Institutes, are: a. Focusing on adapting to the

needs of the peoples of all countries of the world in learning the Chinese language, enhancing the knowledge of the peoples of all countries of the world of the Chinese language and culture; b. Consolidating the relations of cooperation and educational cultural exchange between China and all countries of the world; c. Developing friendly relations between China and foreign countries, stimulating the development of multiculturalism in the world, and building a world of love and harmony.

Sixth, many directors and presidents of foreign universities see that "Confucius Institutes everywhere is working as a bridge of communication between China and other countries around the world, and it encourages the spirit of patriotism among the Chinese people". It helps Modern China as well to promote the people of the world to understand the Chinese language and culture, as well as the many requests for those who want to learn the Chinese language.

Seventh, China has finally found the magic combination that Chinese President Xi described as : "Implementing socialism with Chinese characteristics, adhering to the integration of the basic principles of Marxism with Chinese concrete reality and excellent traditional culture, observing and keeping pace with the developments of the times, and continuing to develop Marxism in contemporary China for the twenty-first century".

Eighth, China's Communist Party is no longer strict ideologues as we used to, leaders of the Communist Party have become more flexible and open, derived from their ancient traditions, and from the nature of the Mandarin language, which does not find in its entire dictionary the word "absolute".

So, the Egyptian researcher is finally describing the whole process of dealing with the principles of Confucius in Modern China, by focusing on "China's flexibility of accepting the old traditions of Confucius and promote them to support Modern China everywhere in the world, Confucius Institutes is the most prominent example in this regard, Confucianism in becoming around us in relative and transformative aspects".

Simply, the essence of reviving Confucianism in the Chinese roots, is that: "Chinese don't use the meanings and ideas of Confucianism as an "indicate definitively an affirmation or a denial", but rather leave any answer in the box of many possible possibilities".

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Author: Dr Nadia Helmy is an Associate Professor of Political Science, at Faculty of Politics and Economics, Beni-Suef University, Egypt. She is an Expert in Chinese Politics, and she is also a visiting Senior Researcher at the Centre for Middle Eastern Studies (CMES) and the Director of the South and East Asia Studies Unit, at Lund University, Sweden.
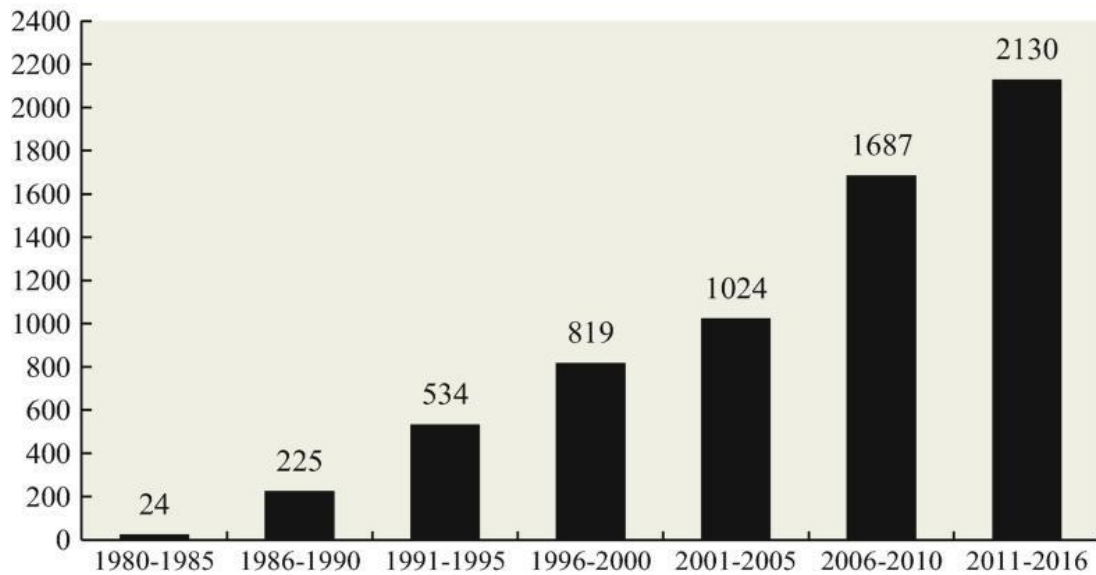
Appendix 1: Chart 1 (Confucius Values in the Political Sphere of China)
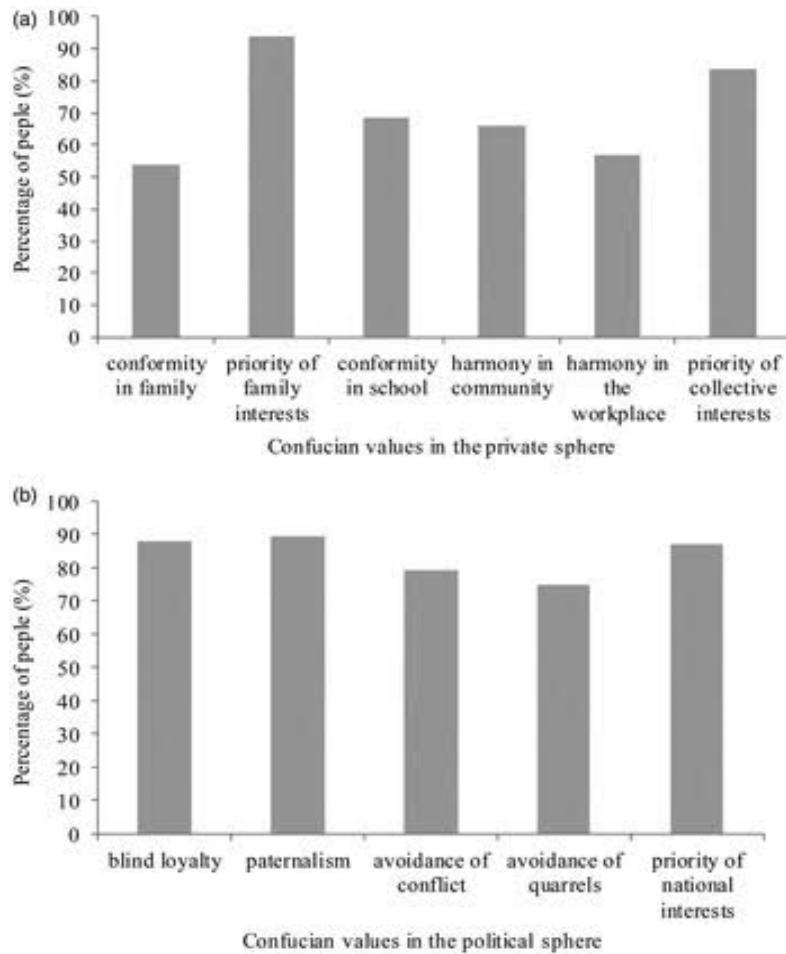
Source: Yidai Zha. (December 12, 2016). Do Confucian Values Deter Chinese Citizens' Support for Democracy? Cambridge University Press, UK.

Appendix 2: Chart 2 (The number of Chinese academic articles with "Confucianism" in titles from 1980 to 2016 in CNKI Database)

Source: Official China's report: "The number of academic articles with **"Confucianism"**, Chinese National Knowledge Infrastructure **"CNKI"**, Beijing, 2017.

Appendix 3: Chart 3 (The impact of Confucianism on the work and firms performance of each Chinese province from 2000 to 2018)
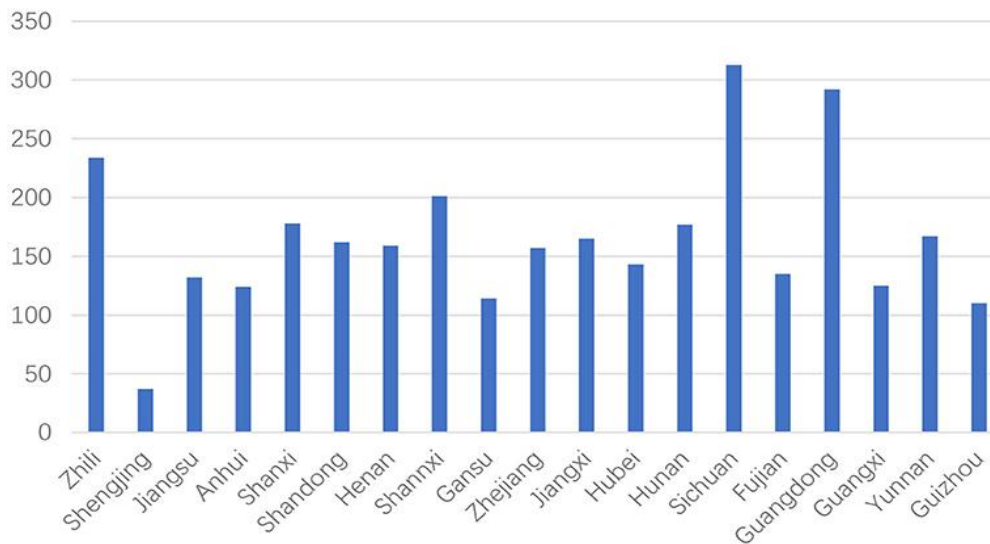
Source: Lisong Wang & Yongjie Zhang & Li Wang & Jingkai Fu. (August 21, 2020). Confucianism and Firm Performance in the Chinese provinces **"2000-2018"**, Tianjin University, Tianjin, China.

The Internet Coerced Social Change: Research on Power Conflict in Network Society and Political Transformation

Wang Chengnan[1] and Liu Chengchen[2]

（1. Supervision Office, Guilin Institute of Aerospace Industry, Guangxi, China；2. College of Public Administration and Communication, Guilin University of Technology, Guangxi, China）

Abstract: In the anti-corruption in China that the power conflict in the network politics was a common phenomenon. In this paper, we research on power conflict in network society and political transformation to solve the power conflict between "vulnerable groups of internet users" and "power suppression from government administrators". The paper argues that there is a need to achieve political modernization in real society to build a more harmonious society and internet society in China.

Keywords: Network politics; power conflict; political transition; public tip-offs

1. Introduction

In 2007, a famous political scientist Mao Shoulong indicated that the network has played an important role in communication between the government and the people. In all aspects of public opinion, public opinion through various forms of expression, if Manager had handled properly, then there will be more stable development of politics.[1] Today, when we look back it is for Chinese networks, perhaps it's not only in the communication between officials and people as playing a great role, such as the CCP anti-corruption. Meanwhile, people use networks to participate in it. Xi Jinping, president of the People's Republic of China, pointed out " we must strengthen supervision over the anti-corruption of power, and we need to build the formation of power does not rot disciplinary mechanism, and non-perishable safeguard mechanism."[2] However, for supervision of power, there are three important questions to answer: how to put power into the cage is a political technology? How can we protect the network report? How do we give healthy channels to the people to fight for their interests?

We can understand public tip-offing online as a power conflict. For the forms of the tip-offs: firstly, people choose to report in the network community and took "text and picture", but now, people using "video and text and picture"(in the Micro-blog and We-Chat community) (for example, I had studied a taxi strike in H province H, they used We-Chat group to communicate. [3]). So, for the content reported by the masses, it's more real, vivid, and sensational, it leading

to higher than the previous forwarding rate, it's more accessible to people's attention. This is a technological change about resistance. Secondly, they can submit information in Zhongjiwei Wangzhan, such as farmers' petitions.

The reason for this change includes that: firstly, people maintain the awareness of their rights. Secondly, they had some tools. Thirdly, the number of internet users increase, and in Renduoliliangda (Strength in Numbers), the China number of internet users had 820 million in 2018. Therefore, the awakening and increasing of internet users, the tools of resistance have brought about the transformation of resistance in today's online society.

Today, when we face many networks political events, how should we understand network politics? How to manage it? It's an urgent problem for China.

2. As the Object of Study "Power Conflict "

Leifeld and Ingold believed that "network politics is a kind of public policy."[4] In other words, if the public policy of the state isn't good, it will inevitably lead to denouncing the citizens on the policymakers and implementer, and the network is the Internet users' accountable tools. Similarly, Bovey also believes that a network is a tool, not only a tool for the supervision of the government, or a means of accountability. Thus, within the framework of political science, the object of study, the power, it's set in a state of political war.

Wu Haijing stated that the main research object of network politics is international relations, national sovereignty, government system, public management,

political participation, political culture, and so on. What's more, we should pay attention to electronic government, electronic government affairs, electronic democracy, and so on. [6] Li Xiang thinks that the song that the main research network of political science Chinese is political power, political behavior, political participation, and political development, etc. [7] The author synthesizes two scholars' viewpoints and thinks that the main research of the network politics is the operation of the political power of the network. This is a further refinement of the ideas I have published in 2016. In the past, I think that the main object of the so-called network political science is political power, political culture, and political structure." [8]

The reason for this change is mainly based on the observation of China's network society. Specifically, first, China's network of social networking tools is a weapon of rights. Because the line of interest structure of power network makes people difficult to transport to the upper and lower voice, and sneak and secretive, even take violent means to suppress the aspirations of the people, therefore, the network has become a means of suppression of anti. Second, the government in the network of the voice of the people are also more targeted and selective delete posts, pin, etc., especially some "Big V" because of excessive participation in public events, resulting in local government agencies using the power to suppress. They are fighting for a control strategy often behind mixed with a series of network operations, such as "Water Army", "50 Cent Party", or even directly use connections in microblog management, it is very complex.

So, from the bottom to the top is a kind of political operation, from top to bottom to see is a kind of political operation, two different political logic can easily lead to conflict and confrontation in the face of "public topic, such as Sichuan, Luzhou." The boy is a typical case of death, no matter how the police announced the fact, eat melon masses just don't believe the game phenomenon behind this event shows: scholars, well-known media people, Internet users to join, asking the government to intervene, publish the truth, especially the video, and the government is great in strength and impetus; struck the face of surging public opinion, everything in good order and well arranged in administrative micro-blog published the announcement of this event. There is no doubt that the credibility of the government in the Tacitus trap is very dangerous.

In general, the understanding of China's many problems must first understand why the game, how to play? Although Sander said that in the Internet era,

network politics in large numbers, the relationship between political behavior of internet users online and offline political discussion, then the individual political cognition and attitude had different effects. [9], however, the cognition of the group is made up of the individual's cognition. Therefore, when a lot of network political people carry on the game with the government department, the first thing is to reflect on what is wrong? Instead of considering how to tip and counter. Otherwise, the network game will make bigger and bigger.

3. The Network of Political Power in the Plight of the Conflict

Dong holds that as a new form of political development, the special and rich connotation of network politics determines its unique and distinctive features. The rise of network politics not only profoundly changed the political ecology of Chinese society but also directly affected the political development of China[10]. The problem that from the level of the game, how to affect China, and what we can see from the network community dilemma? Next, we answer from three aspects.

First, the impact of network politics on individuals. (1) The network politics makes political citizens have a better participation channel. The increase in political information is conducive to the better participation of citizens in political life. (2) By reducing the cost of obtaining political information through the guidance of others[11], the network politics has affected the political structure, and the Internet users have the power to supervise corruption. The network has changed the political power structure of the past, to a certain extent to subvert the power logic of Pyramid, leads the network political individual has a certain power, this power is usually used for supervision of public power and expression of personal interests. For example, the network of farmers in the community report is typical, on the one hand, they report the village cadre's lazy politics and chaos as, on the other hand, following the requirements of Party discipline to investigate and combat corruption and this part of the officials, that people benefit.

Second, the impact of network politics on organizations and political parties. Lei Zhen said that (1) changed the traditional organizational structure of the party; (2) changed the political party policy positioning strategy and agenda-setting; (3) the impact of political organizations[12]. The problem is, even if the network has changed the political party of the content, but in

China, the government for information control on the network still exists, especially the delete and pin, which is not conducive to the public interests and social construction.

Third, the impact of network politics on social and political ecology. Social and political ecology often depends on the efforts of every political person in the network, especially the two sides of the game, the Internet, and the government. At present, although the Commission opened a part of anti-corruption channels, and the network report into the regular army to be valued and treated, but still the sufferings of the people does not effectively solve the scene, because of political-ecological construction not good. On the one hand, users need to consciously abide by the law to report, but not false and rumors; on the other hand, the government should treat each network report, but not selective governance, otherwise, it is what is true or false suspicion of corruption. Therefore, although network politics promote a certain political-ecological optimization, so that people have a certain degree of participation and the right to speak, but still need further efforts to build.

Generally, although the game has appeared in the current Chinese society, there are still problems in the above. Although the network politics in the game level to improve some of the political ecologies, how can we solve: first, how to solve as vulnerable groups of Internet users are not have the power to suppress and revenge? Second, how to solve the game in which the masses have populist tendencies, would like to use violence to punish corrupt officials' tendencies, rather than the use of governance? This seems to be a dilemma.

4. The Conflict Transformation of Political Modernization

Huntington indicated that in general, political modernization includes three aspects: one is the rational authority, by a single, secular, national political authority to replace the traditional or religious family ethnic political authority. Two is the political modernization including the specialization of political function. Three is to include a wide range of political participation of the whole society[13].

To this end, Samuel supported the concept of the above we talked about the combination of difficulties: first, the authority of the government and the rationalization of network politics. When the government is dealing with the network of political games, can not be treated with the power of big thinking, but can not be used to solve the problem of thinking way

to deal with network whistleblowers. A rational government behavior should be careful to treat the network of informants and encourage the free airing of views of political individuals/groups, which handle informants are reporting problems, rather than dealing with reports of people and thus build a more harmonious society Chinese, this is the reason the government should do. Otherwise, the nonrational way, local cadres approach of extreme, violent and unreasonable, often provoke whistleblowers are PIN, delete, finally, the possibility of negotiation will be more and more small. Even if the government cadres in the game when the upper hand, but can really capture the mass line of the people do? The irrational approach is certainly impossible. Second, the specialization of the political function and the operation mechanism of the political organization, and the specialized organization cannot corrupt. Individuals or groups to deal with the report should be used to deal with special units and institutions, and the department heads cannot be corrupt, especially like the Bureau of letters and visits, inspection teams, etc. For example, former deputy director of the State Bureau for letters Xu Jie only in the modified data, petitions petition on bribery about 5500，000 RMB, its subordinate reception secretary two former directors Sun Yingke accepting hundreds of local cadres petition money and about 5200,000 RMB and six former directors Lu Xinhua received letters and visits 114 cadres and two petitioners money about 1300000 yuan. Even from the Hebei province, Handan City Complaints Bureau seconded to the State Bureau for letters reception secretary Li Bin also rely on the money 300 thousand yuan."[14], for example, on July 7, 2015, the second round of the central inspection teams have been stationed in the full inspection of the 13, stationed in the 26 units to carry out special inspections for 2 months. October, the central inspection teams were stationed in the Central Party History Research Center and other 14 units. However, in April 2017, the former deputy director of the central inspection team visits Zhang Hua alleged a serious violation, the organization is currently undergoing review."[15] So, if this line of defense is lost, then how to call the shots? How to serve the people? Third, extensive political participation and the weak dilemma in the game. As a vulnerable group, the participation of Internet users is the power given by the network, but also the rights prescribed by law. The problem is that political participation is often caused by irrational political management behavior that is not high, many of which are "uncompleted residential projects", the report did not have much effect. To this end,

participation is important but requires some practical results.

For Huntington to use the system to ensure the participation, specialization, and rationalization of the occurrence of.[16] The problem is the system embedded into our social and political ecology and by various influences and constraints, especially the "political system, political system and the stability of the process of value in the organization and the degree" [17]. It's so hard? But the difficulty is not the reason why we deny political modernization.

5. Summary

This paper discusses the problems existing in the current network game in politics from three aspects, first, we make clear what is the research object of network politics, this point for us to think about the many networks problems in China is a fundamental premise. Second, we find out what the game dilemma is like in China Finally, we propose that the way out of the dilemma is to turn to modern politics.

The modernization of the political game for both sides of the political network is good, especially within the framework of the system of political civilization behavior and operation, will not only reduce the loss of legitimacy (because of violence), but also reduce the intensity and frequency of the game, let the opposition between the government and the people's problems are solved, and the ability to contribute to the construction of a harmonious society, it is a good way to solve a dilemma game of network politics, is also an optimal choice of political transformation.

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Authors: Wang, Chengnan is the director of the Discipline Inspection Office (Supervision Office) of Guilin Institute of the aerospace industry, mainly studying in legal sociology; Liu, Chengchen, is a teacher and researcher of faculty of public administration and communication, Guilin University of Technology, mainly studying in political sociology.

Application of the "Internet+" Online Teaching Model of Histology and Embryology under Covid-19 Pandemic

Cai Yinglan

（Department of Histology and Embryology, School of Medicine, Yanbian University, Jilin, China）

Abstract: Histology and embryology are the core courses of clinical medicine and the important basic courses of basic medical and clinical medicine curricula. During the prevention and control of the Covid-19 epidemic, following the documentary spirit of China's Ministry of Education and the Yanbian University of "suspension of classes without stopping teaching, and suspension of classes without stopping learning", our teaching and research team carried out the "Internet+" online teaching of histology and embryology courses. The combination of various teaching resources has constructed the "Internet+" teaching model of pre-class preview, in-class learning, and after-class review, which breaks through the traditional time and space constraints, improves students' interest in learning, and makes students change from passive learning to active learning.

Keywords: Covid-19 pandemic, medical education reform; histology and embryology; Internet +

1. Introduction

Histology and Embryology are the core courses of clinical medicine and important basic courses for basic medical and clinical medicine curricula. Histology mainly studies the microstructure and function of the body, and embryology mainly studies the whole process and mechanism of the development from a fertilized egg to a new individual. China's "Ten-Year Development Plan for Education Informatization" proposes that education and Internet information technology must be deeply integrated, and education should make full use of modern Internet information technology to improve teaching quality [1]. During the prevention and control of the new crown pneumonia epidemic (Covid-19), following the spirit of the document of the China's Ministry of Education and the Yanbian University of "suspension of classes without stopping teaching, and suspension of classes without stopping learning", our teaching and research team carried out "Internet +" online teaching of histology and embryology courses. All teachers of the Department of Histology and Embryology prepared carefully in advance and carried out online teaching activities of histology and embryology courses according to the normal teaching arrangement. The total number of hours of histology and embryology courses in the clinical medicine major of our school is 72 hours, including 40 hours of theoretical courses and 32 hours of experimental courses. From the 1st week to the 8th week, theoretical courses were first taught through the Chaoxing Xuexitong (Learning Platform). After the students still could not return to school, from the 9th week, we conducted experimental courses and theoretical courses through Internet platforms such as Medical Magic Course Cloud Platform, QQ, WeChat, and Chaoxing Xuexitong. Here we share our "Internet +" experience accumulated in the online teaching model.

2. Make Adequate Preparation Before and After Class

During the winter vacation, the university and college deployed school epidemic prevention and control work and a new semester teaching to all teachers and students. Two weeks before the start of school, schools and colleges conduct various online teaching skills training to ensure that teachers master the basic operations of online teaching software such as Chaoxing Xuexitong, Rain Classroom, and Live Classroom.

After the school starts, the college arranges the backbone of teachers to share online teaching experience and designates special personnel to provide Internet technical support to ensure smooth teaching.

3. The Construction of "Internet +" Online Teaching Mode

"Internet +" is a representative product of the 21st century. In the rapidly developing Internet era, the

Internet has become an indispensable part of our study and life. We make full use of modern Internet information technology to build an "Internet +" that combines the Internet with existing high-quality network resources, video recording and live broadcast of lectures, a cloud platform for medical magic classes, and after-class interaction online teaching mode.

3.1 Rational use of existing high-quality network resources through the Internet

In the information age, the Chinese education authorities propose that the development of educational informatization should be guided by the innovation of educational concepts, based on the construction of high-quality educational resources and an informative learning environment, which should be centered on the innovation of learning methods and educational models. They advocate the use of network resources for various teaching reforms, during the new crown pneumonia epidemic (Covid-19), colleges and universities are especially encouraged to use existing network resources to conduct online teaching [2]. We use the existing excellent network resources open and shared by the state to collect and discover high-quality online course resources on platforms such as Renwei MOOC, China University MOOC, and Chaoxing Erya, and push key learning to students through platforms such as Chaoxing Xuexitong and QQ. The content, combined with classroom discussion, interaction, sign-in, and other teaching links, increases the interest and autonomy of students' learning.

3.2 Rational use of live broadcasts and recorded lecture videos through the Internet

Each of our teachers uses tools such as PowerPoint to make our own recorded and broadcast videos of each chapter, upload the recorded and broadcast videos to the Superstar Learning Platform and set them to be distributed regularly so that students can attend classes on time according to the teaching schedule. We set to pass through the mode to distribute so that students can unlock the next chapter after completing the task point. We also set the anti-drag and anti-window switching functions and supervise the students to watch the recorded video content carefully according to the task point. Teachers can check the status of students completing task points, chapter study times, sign-in, etc. through the statistics window of Chaoxing Learning Platform, as the basis for their usual grades. Before the class, the content and tasks of each class are notified on the Chaoxing Learning Platform. During the class, discussions, and interactions are conducted in the discussion window of the Chaoxing Learning Platform,

which increases the motivation of students' learning. The research content of embryology is a continuous dynamic change process, with a strong dynamic three-dimensional sense, which requires students to give full play to their dynamic and spatial thinking ability and have the concept of time [3]. We started from the 12th week, through "Ali Dingding" "and use various teaching videos to carry out online live teaching of embryology, giving full play to the interaction between teachers and students.

3.3 Rational use of the cloud platform for medical magic lessons through the Internet

After confirming that the students could not return to school in the ninth week, we conducted experimental classes through the medical magic class cloud platform, QQ, WeChat, etc. During the COVID-19 outbreak, the Shanghai DreamRoad Medical Magic Course Cloud Platform provided free online virtual experiment teaching resources for colleges and universities. The platform reintegrated a large number of real morphological specimen data information with computers and established a morphological digital teaching software. system. The morphological digital teaching software system of the medical magic class cloud platform has a total of 863 digital slices, which are divided into 19 chapters. Students observe the specimens online according to the teaching progress, and teachers guide online. To test the learning effect and supervise the online learning situation of the students, every 15-20 minutes, the students are called to ask questions, and the students can also discuss interactively, and the teachers can summarize. Each chapter is set up with a self-test system for students in this chapter. After students observe the specimens online, they can also conduct online tests by themselves, which enriches teaching resources and enhances the teaching effect. This virtual experimental teaching model is an effective method for online experimental teaching way.

3.4 After-school interaction via the Internet

Teaching interaction can mobilize students' thinking and activate the classroom atmosphere, which is an important part of teaching. Online teaching teachers and students cannot communicate directly face-to-face. Therefore, it is particularly important to explore the way of online teacher-student interaction. After each theoretical class, students are given homework and test questions in Chaoxing Xuetong. After giving students a certain time, they can answer in Chaoxing Xuetong or QQ group. Finally, the teacher makes a summary, which can greatly improve the attendance rate of students. , mobilize students' learning

initiatives. After each experimental class, students are also left with homework to draw and record the observed specimens and send the homework to the QQ group. Drawing can turn boring text into colorful images, so it can improve the fun of learning, and it can also help students understand what they have learned in time, activate the learning atmosphere, and improve learning efficiency.

4. Conclusion

In the Internet era, education should make full use of modern Internet information technology, and deeply integrate with Internet information technology, implement advanced educational concepts into practice, and improve teaching quality. Histology belongs to the subject of morphology and is the core medical basic course. It focuses on the study of the microstructure of the human body and its related functions. The teaching content is large, the structure is complex and abstract, and the knowledge points are difficult to remember. During the COVID-19 epidemic, we conducted online teaching through the "Internet +" model, using the existing high-quality network resources open and shared by the country, giving full play to the advantages of national quality courses, and solving the problems of boring classroom teaching and monotonous teaching methods. The problem of teachers and students not being able to communicate face-to-face during the epidemic has been effectively solved through recorded and broadcasted videos and online live teaching, and the teaching methods have been enriched. Moreover, MOOCs, recorded and broadcasted videos, and live broadcast teaching can all be played back for students to review by themselves, thus forming the "Internet +" teaching mode of pre-class preview, in-class learning,

and after-class review. The "Internet +" teaching mode not only enriches the expression of teaching content, but also breaks through the traditional time and space constraints, reflects students' autonomous, personalized learning and interactive learning, improves the quality of teaching, and increases students' interest in learning so that students change from passive learning to active learning.

Nowadays, colleges and universities focus on cultivating students' comprehensive quality. Under the background of "new medicine", we must improve students' learning interest and autonomous learning ability, and enhance students' ability to discover, analyze and solve problems. In the rapid development of the Internet era, building an online teaching model is the responsibility of every university teacher given to us by history. We will promptly summarize the experience of the "Internet +" online teaching model constructed during the COVID-19 epidemic, and further improve the teaching system of histology and embryology for medical majors.

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Author: Cai Yinglan is an associate professor at Yanbian University, mainly engaged in the teaching and research of histology and embryology. E-mail: ylcai@ybu.edu.cn.

Using Short Looping Video and Advanced Pedagogical Practice in a Health and Physical Education Program

Chris Zehntner and Jenny McMahon

（University of Tasmania, Launceston, Australia）

Abstract: The challenges associated with instruction of health and physical education in school learning environments has been described as a roadblock to student learning. Anecdotal observations of pre-service teacher demonstrations of movement skill highlighted the poor connectivity between what is performed (by pre-service teachers') and what can be perceived. This article reports on an action research project that sought to utilize a multiple reflection in action cycle to support pre-service teachers to develop better performances of skill and an advanced pedagogical approach. An action research approach was utilized to implement the use of video review. Action research was utilized purposely to effect change and to encourage a democratic approach to research. While this approach does not imply the development of universal knowledge, the interpretation of findings confirms that pre-service teacher development of a short looping videos enhanced the quality of reflection, improved the accuracy of instruction (in terms of movement) and resulted in a pedagogy suitable for instruction in challenging environments.

Keywords: Health and physical education, action research, advanced pedagogical approach, short looping videos

1. Introduction

Schools are regarded as a site for learning where instruction often takes the form of the teacher speaking and children listening. This perception is not altogether uncontested nor seen as unproblematic by the layperson. In sites for learning, noise is the predominant barrier that may impede teachers' instruction and children's learning. It is no surprise that school teachers have been found to experience psychological distress due to noisy learning sites at almost twice the rate of members of the general public (Finlay-Jones, 1986). Further, a large number of teachers have been found to suffer from frequent throat pain and vocal fatigue as they attempt to negotiate noisy learning sites (Bermúdez de Alvear, Barón, & Martínez-Arquero, 2011; Ryan, 2009). In relation to the physical education (PE) context specifically, research conducted by Ryan and Mendel (2010) found the PE learning site to have higher than recommended background noise levels and subsequently labelled them as 'hostile learning environments and roadblocks in terms of children's learning. As such Ryan and Mendel's (2010) findings prompted calls for architectural considerations and augmenting devices such as voice amplifiers to aid PE teacher instruction. This focus on sound and a teacher's

ability to overpower it with amplification and organization (Ryan, 2009, 2010) lacks critical consideration of other pedagogical strategies available to the PE teachers. Despite the noise factors found to occur in PE learning contexts, Ryan (2009) has cautioned educators seeking strategies in such environment to not to overlook the fundamental process of speaking and listening. More specifically Graham (2008) suggested that demonstration is a typical element of instruction for physical educators, and that the dual use of words and actions is a key pedagogical consideration that will assist to focus learners' attention.

In order to overcome the challenges associated with the PE learning site, Graham (2008) suggested that teacher demonstration must be a key consideration to successful PE teaching. James and Pollard (2014) explained that such a pedagogical approach needs to be addressed prior to teachers being in the field, and that PE pre-service teachers needed to be provided with the knowledge and strategies so they are adequately prepared for such challenges. If such a consideration is implemented into pre-service teacher education, James and Pollard (2014) explain that PE pre-service teachers with have the skills needed to negotiate challenging learning sites. This will invariably improve learner outcomes in the PE context, underpinning the very essence of education. The research team sought to

investigate the key question; does instant video feedback and reflection on performances of movement skills improve the quality of pre-service teacher demonstrations thus resulting in an improved pedagogical approach.

In order to achieve the aims of this project, the research team felt that the video capacity of tablet devices to record and play back visual demonstrations of skill would provide a flexible and valuable platform for pre-service teachers to reflect. Video feedback has previously been utilized with success in medical education to develop surgical skills (Backstein, Agnidis, Regehr, & Reznick, 2004) as well as dance education (Dania, Hatziharistos, Koutsouba, & Tyrovola, 2011) and pre-service teacher education (Colasante, 2011; Maclean & White, 2007; Prusak, Dye, Graham, & Graser, 2010). Both Colasante (2011) and Prusak et al. (2010) utilized pre-service teacher reflection on recorded performances however practical considerations of technology in each investigation meant that video review occurred only after a protracted period. The research team felt that this protracted period could severely limit a pre-service teacher's ability to reflect on and modify the original performance. It was therefore proposed by the research team that the use of more dynamic video feedback (frame by frame control, rewind and slow motion video tool) and a multiple reflection-in-action cycle would better develop pre-service teacher demonstrations of performance such that they would make advanced pedagogical choices. The research team thus felt that dynamic and instantaneous reflection on performances would first allow pre-service teachers to: (1) critically reflect on skill demonstrations; (2) reconsider and appropriately select pedagogical approaches for PE instruction, and (3) potentially improve pre-service teacher ability to perform movement skills.

2. Impetus

The impetus for the research project came from anecdotal observations of pre-service teacher demonstrations of movement skill within practical tutorial activities at the research team's tertiary institution. What became apparent for the authors from these observations of PE pre-service teachers was the mismatch between the verbal instruction and the quality of the actual PE demonstration. In many cases this mismatch was so profound that if one had not heard the verbal instruction, little or no meaning could be made from the physical demonstration of the skill. Alongside personal and professional goals to improve the quality

of teaching practice, the researchers aimed to contribute to faculty and institute goals through integration of technologies, pedagogies, and sports skills and the implementation of effective teaching within a variety of contexts. Further, this research project contributed to general capability priorities within the Australian curriculum Health and Physical Education (HPE) with particular reference to the ability of students to analyse, measure and enhance movement performances through the integration of technologies (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2016).

3. Methodology

For this investigation the research team utilised an action research approach. Kember (2000) suggested that an academic's research is "influenced, if not determined by" (p. 7) their epistemological beliefs. The action research approach dovetails with authors 1's alignment with critical approaches that utilise the actions of observe, reflect and the will to try to bring about change (Kember, 2000). There were four key considerations for employing the action research methodology. First, the authors share a commitment to democratic social change, in particular we subscribe to Lewin's (1951) notion that systems can be better understood if the enquiry process involves the members of the system. Second, as educators the authors were motivated by the desire to improve their teaching practice through monitoring and reflection. The formalisation of this process lead to enquiry into personal teaching practice and the incorporation of participatory research methods. The fact that the 'others' involved in this project (pre-service teachers and class tutor) have a voice and we the researchers are open to the views of others aligns with Kemmis' (2009) notion of practical action research. The authors felt that an action research approach wherein pre-service teacher participants could contribute to the development of the design and implementation of the project was the best fit. In this way the team sought to solve a real world problem "while dealing with localized contingencies" (Harrison, 2013, p. 1). Third, the authors believe that even within complexity and uncertainty we can resolve dynamic problems. This aligns with Brydon-Miller, Greenwood and Maguire's (2003) suggestion that in order to effect social change we have to deal with some messiness. Fourth, action research was employed because this approach is purposeful with regard to the dissemination of findings. In the first instance, we do not privilege academic community over participants and the development of theory in this investigation is both experienced by pre-

service teachers and can subsequently be taken up by the same to further develop practical pedagogies in their future study. Second, through action research, findings are able to be disseminated through practical workshops aimed at pre-service teacher educators and third, via this formal development of scholarly writing for academic consumption. The research team also value the way that the action research approach encourages reasoning or theoretical explanations of a local reality. Our bracketed theoretical assumptions prior to data collection aligns with Sparkes and Smith's (2014) development of inductive strategies in response to a foreshadowed problem. This bottom up approach seeks to explain and describe using theory rather than create universal knowledge (Coghlan, 2002; Sparkes & Smith, 2011). While this approach to generating practical knowledge can align with case research (Blichfeldt & Andersen, 2006), we subscribe to Coghlan's (2002) call for action researchers to more clearly articulate for the reader how this story should interest others.

Action research has been variously described, however it is easiest understood with reference to how it relates to knowledge. Action research is described by Huang (2010, p. 93) "as an orientationto knowledge creation that arises in a context of practice". The context of practice in this instance is a learning site; tertiary tutorials. Mills (2000) suggested that by using action research one can systematically enquire and "gather information about –and subsequently improve" (p. 20) how learning sites operate. The action research process is characterised by its collaborative nature and that the focus is on personal practice rather than the practice of others (Kemmis, 2009; Mills, 2000). Action researchers want to effect change rather than just understand a social organisation (Dick, 2015; Huang, 2010). While action research is taking an increasing number of forms, the fundamental element of enquiry by teachers in teacher identified issues remains at the centre of this methodology (Noffke & Stevenson, 1995).

3.1 Method

In this section, an elaboration of the method for this investigation will be outlined. The process undertaken in this project builds on Kemmis' (1988) well known action research spiral3 which includes exploration, planning, action, monitoring, reflecting, rethinking and evaluation. In this instance the research team monitor, reflect, rethink, before cycling around to complete a second action step. This approach is based on Lewin's (1947) cyclical spiralling process guiding both the method of enquiry and presentation of this scholarly submission. In this way, the report that follows utilises a narrative style whereby each of the titled stages, as described by Kemmis (1998), are first elaborated and then populated with the procedure and findings of this investigation.

3.2 Exploration

Exploration is the process of informal and formal gathering of information to support the action research process. Exploration of the subject matter followed the anecdotal observations outlined in detail in the impetus for this investigation. After watching numerous cohorts struggle to make the connection between verbal instructions and physical movement patterns, the research team reviewed scholarly articles that referenced the use of video feedback in the development of pedagogy. There was little evidence of the use of tablet technology with the two most recent investigations utilising hand held video recording devices and a reflection cycle of longer than a week (Colasante, 2011; Prusak et al., 2010).

The researchers determined that more immediate reflection and the opportunity to reconsider elements of the performance of skills would enhance pre-service teacher capacity to critically reflect and develop advanced pedagogy. This lead to the development of an action plan in which a shortened and multi-reflection in action cycle utilising instant video playback was implemented.

3.3 Planning

This 'planning' stage outlines the evolution of the project from resource organisation up to the practical implementation of the action research process within tertiary tutorial classes. In line with Stirling and Belk's (2002) suggestion that the most effective teaching pattern involves clear and concise communication that avoids too much disruption to the flow of instruction, the research team developed an action plan that sought to achieve this. In early December, 2015, the research team obtained a grant from the Tasmanian Institute for Learning and Teaching (TILT) to run a teaching development project with pre-service teachers enrolled in the Bachelor Education (Primary and Early Childhood) degree at University of Tasmania (UTAS). The research team defined the aim of the project as 'investigating how instantaneous video feedback through the use of tablet technology implemented into practical teachings might assist pre-service teachers to reflect on and adjust their pedagogy to suit their environment'. It was initially proposed as a multiple case study analysis with participants from both UTAS and another Australian metropolitan university that were enrolled in health and physical education (HPE)

pedagogy units. The project contracted slightly following the purchase of iPad tablets due to logistical constraints of sharing resources with another university. It was decided that the first iteration of the project should operate as a pilot study that might inform a broader investigation at a later date.

Following ethical approval by UTAS Human Research Ethics Committee in March 2015, the research team began planning for the project to commence midway through semester 1, 2015. Bachelor of education students (referred to as pre-service teachers) undertaking their second year of study were purposely chosen as the participants as this group would be introduced for the first time to instruction of movement patterns. Three tutorial groups (n=70) of pre-service teachers enrolled in the 'Introduction to Health and Physical Education' unit were introduced to practical pedagogies (as a part of their normal learning sequence) around the inclusion of movement into both the classroom space and the outdoors. The research team decided that the best juncture in which to start the investigation was during a tutorial dedicated to the development of fundamental motor skills (FMS). The acquisition of fundamental motor skills is regarded as the primary determinant of children's ability to master key sports specific skills such as throwing or hitting balls, running and jumping (Siedentop & Van der Mars, 2004). Research also suggests that there is a positive correlation between the FMS and adolescent participation in organised physical activity (Lubans, Morgan, Cliff, Barnett, & Okely, 2010; Okely, Booth, & Patterson, 2001). The Victorian Department of Education state that "during the early primary school years (P-3) students must be given the opportunity to learn the essential motor skills upon which later learning is dependent" (Victoria, 2009, p. 4). This is based on the suggestion that children develop motor skills sequentially, and are building on previously learned movements in preparation for the assimilation of advanced skills (Clark, 2005; Victoria, 2009).

4. First Action Step

This stage describes the process undertaken with the first tutorial group in which investigators describe and facilitate the activity and pre-service teachers experienced the instantaneous reflection in action of their personal performance artefacts.

In the tutorial on the week prior to the investigation, pre-service teachers were encouraged to review the lecture material and readings and research a pedagogical approach for the instruction of a fundamental motor skill. The pre-service teachers were told that as a part of the general teaching and learning sequence they would be instructing a small group of their peers to become proficient at their chosen skill. In order to augment their development of such performances a peer would record their instruction such that the instructor could play back and review the video and in this way inform future performances. During the introductory discussion in each tutorial group, pre-service teachers were informed of the research project and invited to participate in the formal gathering of data. This created a mini storm of consternation by pre-service teachers not wanting to be recorded. Consenting individuals recorded their preference on informed ethical consent statements distributed by the research team and the tutorial began. After the initial resistance of some to be involved in the recording of instruction all except one pre-service teacher consented to the process after watching others in the group have a go.

In preparation for the project, the research team downloaded the 'Netball Coach Plus' application onto four iPad tablets. This application utilised the iPad video camera function and was able to record and review video at various frame speeds such that video grabs could be reviewed, paused and annotated with text or voice. At the commencement of the first practical tutorial session the group were introduced to the application, however the point and shoot intuitiveness of the application interface reduced the need for extensive tutelage. Pre-service teachers broke into small groups and began recording instruction.

The pre-service teachers initial focus was on the mild embarrassment caused by watching and reflecting on a recording of themselves, "A bit embarrassing but I could see where I was going wrong and I am sure I could do a better job of it next time".

4.1 Monitoring

In order to determine the effect of the activity planned during the first action step, data were collected in a number of ways. First, the tutor and chief investigator who were present and facilitated the activity recorded handwritten notes which detailed the general pattern of activity, peculiarities, the essence of conversations between pre-service teachers and conversations between the instructors and pre-service teachers. The second data collection tool was a questionnaire that was given to pre-service teachers at the conclusion of the tutorial and contained open ended questions relating to the investigation to record pre-service teacher understanding of the usefulness of the activity in developing; reflective practice,

demonstrations of skill and pedagogical choices. Finally, the recorded performance artefacts developed by pre-service teachers were retained in the memory of the iPad devices.

Walking among the groups, investigators observed and recorded a wide range of approaches to instruction by pre-service teachers. Investigators supported the record-reflect process and noted the specifics of interactions in a note book. Group members took a turn instructing/ leading their group through the movements and used a variety of pedagogical approaches to achieve success. Three main approaches became apparent here with the majority of pre-service teacher instructors utilising a talk while demonstrating approach, and the remainder either using a skilled demonstrator while instructing or using verbal instruction only and physically manipulating their students through the movement.

Recorded artefacts developed by pre-service teachers ranged in length from one minute to over four minutes. The result of this was a significant amount of down time for non-instructing members in each group as the instructor reviewed their performance artefact. Non-performing members seemed not to be inclined to be a part of a collaborative review process and sat back to wait for their turn. In addition, subsequent performances were characterised by more extensive dialogue which provided layers of information and very little change in the actual movement demonstration itself. Due to the length of some recordings not everyone in each group had an opportunity to demonstrate their movement skill.

The tutor in charge of the pre-service teacher group noted, "They just seem to be over compensating for their lack of, or poor body movement by describing in greater detail what they want. That's going to work for some students but not everyone".

The most telling interaction between investigator and pre-service teacher proceeded thus; After watching the video playback of one particular demonstration of skill, the investigator enquired, "Lets watch this together and you can describe how the performance unfolded." As the video plays, and vision of the pre-service teacher demonstrating is illustrated on the tablet, the investigator asks; "What are you demonstrating here?" The reply; "OK, so this is where I am showing them what not to do…" "What about this next performance?" asks the investigator? "Again I am showing what not to do." "And this performance?" prompts the investigator; "That is also what not to do… [A brief pause] But next is where I show them how to

do it". What followed was a short discussion about how this might be interpreted by a watching group of children and the potential disorientation that might occur due to the repeated performances, only one of which is correct.

4.2 Reflecting – rethinking

This important stage of the action research process is achieved by reflection on the first action cycle. To do this the research team review the initial plan and consider the possibility that there were elements of the process that could be altered to enhance success of the activity. This interpretive reflective step considered as described by Creswell (2002), whether the action cycle made a difference. The importance of this responsive reflect and rethink step allows both the researchers and participants to adapt and enhance the research model (Wolcott, 2003).

At the conclusion of the first practical tutorial the research team met to discuss the session. There was a general feeling of dissatisfaction with the way that the video recordings supported verbal instruction and did not encourage an emphasis on the physical performance of the instructor, i.e. what was visible to the learner. The research team brainstormed ideas that might encourage an alternate focus. From this process it became evident that the length of the instructional performance had to be somehow limited. In addition the research team felt that the narration, over the performance of skill, encouraged an over reliance on words to communicate. The light bulb moment for the research team came in the form of a humorous 'Vine' that was shared on the chief investigators social media stream. The 'Vine' entitled; 'How to kick a ball' showed a young man facing the camera and stating, "This is how to kick a ball". The next frame is the young man kicking a large (60cm diameter) fit ball squarely into the wall, whereupon it promptly bounced back, directly into the kicker and camera with obvious consequences. At this point the video loops back to the start and continuously replays the sequence.

In order to refocus pre-service teacher attention on the visible elements of the performance artefact the research team decided that three changes should be made to the action plan for the remaining two tutorial groups. First, it was decided that pre-service teachers would produce a six second looping video that was subsequently uploaded to the video host 'Vine'. It was hoped that in this way the small groups would be encouraged to collaborate in the production of numerous small sections of video that when played together would provide the visual cues required to better

communicate the movement pattern. Second, the video would be recorded without accompanying verbal instruction. This decision was a practical consideration of the fact that the dance hall utilised, and the large number of groups working in the space mimicked the same challenging acoustic environment that teachers experience in schools. Third, the 'Vine' would then be utilised to as an instructional tool for another group of pre-service teachers. This final step was implemented in order to gain an element of neutral feedback on the performance artefact. Mills (2000) interprets this realignment of the area of focus as fundamental to action research, Mills further suggests that the "intimate, open-ended and often serendipitous" (2000, p. 71) nature of change in action research can help to clarify the focus area.

5. Second Action Step

At the commencement of second tutorial session pre-service teachers were introduced to the Vine application and spent a few minutes becoming familiar with the record, pause and edit functions on the application interface. Without extensive instruction pre-service teachers were encouraged to produce a soundless Vine that communicated their chosen movement pattern to a child. Notes recorded, by the chief investigator, during this tutorial indicate that early attempts were characterised by pre-service teachers attempting the entire movement pattern and becoming frustrated by the six second limit. It was also noted that soon after this initial frustration, groups instinctively began to realise that they needed to break their movement pattern into a small number of main or key steps. Through rich and animated discussion, pre-service teacher groups analysed their particular movement and decided which elements needed to be included and focused on:

Group E, working on their demonstration for catching a ball.

Pre-service teacher 1: "So if we focus on the hands up/ thumbs touching/ palms out first, then the second clip of the ball landing in the hands that will show that this is the best hand position."

Pre-service teacher 2: "Yes, but before all of that we need to show body position. You know; feet slightly apart, knees bent, hands up and eyes on the ball. We could do that thing, you know where you point at your eyes and then point at something to mean; look at that" (preservice teacher 2 gestures the 'I'm watching you' sign with her index and middle finger).

Pre-service teacher 3: "We probably should show

that part 'side on', otherwise it will be hard to see the proper position of the body."

From this point they discussed how many short video grabs (passages of video) would best communicate the key steps. With reference to the finalised artefacts, this was done quite simply for the majority of groups by dividing the six second limit into equal portions that demonstrated a specific of key element in the sequence of movement. Some groups also finalised their recording with a fluid and complete movement from start to finish that showed all elements combined at real speed. So a typical final production would loop (continuously replay) showing three key teaching points in sequence and possibly the full movement pattern in one short passage at the end of the video.

5.1 Monitoring, reflecting, and interpreting

In this final step we present and interpret data gathered during and after the second action cycle. The search for meaning should not be confused with an authoritarian interpretation, rather as Mills (2000) suggested; there comes a point at which must summarise what you have learned, share the findings and determine what happens next. Interpretation of the data values Wolcott's (1994) view that despite their "undistinguished origins, our works and the implications to be drawn from them are socially significant" (p. 258).

The presentation and analysis of data follows the storied approach (Smith, in press; Smith & Sparkes, 2009) where inductively developed themes are presented with excerpts and vignettes from the data. In this instance interpretation of the data first follows what Mills (2000) described as an approach that is "low on the data interpretation risk scale" (p. 113). This approach described by Stringer (1996) as extending the analysis, involves raising questions about the study, and reporting implications that could be drawn. In this way we are pointing rather than leading the way. In order to extend our understanding of the data we ask a series of key questions based on and incorporating the research question. In this way the research team further reveal the problem under investigation (Stringer, 1996). The second stage of interpretation utilises the more powerful interpretive lens that is based on the researchers' experiences conducting the study (Mills, 2000). In this way the memories and emotions of the researcher are brought to the fore and are used to make sense of the findings. Indeed as suggested by Mills (2000) the investigator is embedded within the process and is best placed to "make sense of discrepant events" (p. 114)

played out in the investigation.

The development of themes was an inductive process and began in the exploration and planning stages of this investigation. In order to find meaning in the data, recurring themes were identified from pre-service teacher feedback (questionnaires), drawn from investigator notes and observations and from the Vine's (instructional artefact). Themes were developed following Spradley's (1979) approach where the data was reviewed for evidence of; contradictions, satisfaction/dissatisfaction, successes and failures, outlying considerations. The themes that were derived and become the organising framework for the following reflection and interpretation were: engagement, clarity and accuracy, skill and pedagogical development.

5.2 Engagement

In order to consider the effectiveness of this approach some measure of the pre-service teacher experience needed to be determined. One characteristic that I strive for in my personal approach to instruction is an enthusiastic and energetic encouragement of pre-service teachers undertaking practical activities. During the second action cycle the chief investigator and tutor were essentially sidelined and while we introduced the activity with vigour, pre-service teachers took over the process of design, evaluation and redesign of performances for production into Vine artefacts. Early resistance by pre-service teachers was limited to an initial sense of discomfort in seeing themselves perform: "It was a little weird watching myself but I can now see how my actions might be muddled by students."

This small element of resistance was far outweighed by pre-service teacher comfort with contemporary iPad technology and the social media element of the Vine application. "Teachers are working in a technological world and need to be up with this sort of technology."

All of the groups that participated in the second action cycle uploaded their video (to Vine) and tagged (via Twitter and Facebook) themselves and their friends in order to further share their submission on their preferred social media.

In order to extend the analysis we ask ourselves; if this approach is transferable, both to other teaching contexts and with differing pre-service teacher groups? This pre-service teacher group demonstrated considerable enthusiasm however additional rigour and a better determinant as to the wide ranging success of this project must include a more diverse pre-service teacher group. To this end, the implementation this approach has become a feature of introductory practical,

activity and movement based pedagogy units that are led by Author 1.

The collective feeling of the research team is that 'we got this part right'. Field notes collected indicated the high degree of engagement and group involvement with the process. It was noted a number of times that some pre-service teachers became so engaged in the design of the performance artefact that they seemed not to realise the importance of what they were doing, i.e. the development of a high quality performance and continued development of their pedagogical practice. Apart from a few humorous moments, as evidenced in Vine artefacts, the pre-service teacher groups undertook the second action cycle with a combination of thoughtful consideration and vigour.

5.3 Clarity and Accuracy

Pre-service teacher reaction to the second action cycle was enthusiastic as noted by the investigators in field notes. In particular it was noted that pre-service teacher conversations focussed primarily on how a movement pattern was or would be perceived, i.e. the clarity and/or accuracy of the performance. This element in particular drew opinions from all members and rich debates about how a child audience might interpret the performance drew the groups together around the video screen rather than the more individual record and reflect approach seen in action cycle one. This theme featured prominently in pre-service teacher responses in the post activity questionnaire: "I feel like this approach helped me to be more thorough and precise with my instruction." "This approach encouraged me to focus on emphasising or over emphasising parts of my demonstration so that students can see that this part is important." "Yes, this activity helped me to place a higher emphasis on the combination of visual and verbal cues." "It allowed me to see the lack of depth portrayed initially, this lead to more detail and clarity in the final production." "It allows you to see how miss-communication can occur."

These responses were characteristic though pre-service teacher responses varied in length and detail. If we ask the research question; 'does instant video feedback and reflection on performances of movement skills improve the quality of pre-service teacher demonstrations?' then the answer for this group is in the affirmative. Further investigation of the data set and retesting of this approach might provide a more robust conclusion. With regard to the researchers' lens, this approach provided many points in which the investigator noted that pre-service teachers focus was directed to clarity, quality and accuracy due to the short

duration of recorded artefact. The fact that the research team felt that pre-service teachers took control of their learning by actively engaging in critical discussions and efficiently redesigned elements of their instruction to enhance understand-ability leads us to conclude that the shortened format offered by the Vine had a positive effect.

5.4 Skill and Pedagogical Development

Pre-service teacher responses collected via questionnaire provided positive support for this approach. A common thread from respondents was that the recorded footage often differed as to what pre-service teachers perceived they had done. As one respondent noted: "It is easy to forget what has happened or what you did or said. Having footage of it allows for it to be watched repeatedly and for reflection to be made based on actual evidence."

Another pre-service teacher stated: "As a visual learner it gave me the opportunity to actually see the activity again, rather than relying on memory to make the changes if required."

The key question for this section is; does this approach help pre-service teachers develop skill and advance their pedagogy? The conclusion that the research team draw from field notes and review of recorded Vine artefacts produced by the group of pre-service teachers is in the affirmative. Preservice teachers developed outstanding artefacts (Vines) that communicated clearly through the use of body patterns and pedagogical techniques their chosen skill. While pedagogical approaches in the second action stem mirrored those exhibited in the first action step (teacher talks and demonstrates, using a skilled actor with teacher narrations and using an unskilled actor that is physically manipulated through the movement) the primary advance in pedagogy was the recognition of the key elements and the clarity of the key elements of the physical movement pattern.

One pre-service teacher was critical in their response, stating that the approach; "…had no impact on my development of advanced pedagogy."

Most responses fell on the affirmative side of the question noting; "…the importance of the visual aspect, there is definitely a need to over emphasise" "It allowed me to think more deeply about what my body was doing during instruction."

Pre-service teachers also noted that by compartmentalising their instruction or; "…breaking it down for my students, and over exaggerating the important stuff."

They could develop a more advanced pedagogical approach.

Importantly pre-service teachers noted their satisfaction with the use of technology, however they also felt that this approach might not be limited to improving teacher demonstrations; "This approach has made me consider using technology more effectively in learning environments to benefit students learning. I can see how this use of iPads might help students rather than distract them."

This suggestion that not only could this approach impact on teacher performances of skill, but if the same approach were utilised with children that in might aid learning.

From the research team's perspective, the way that pre-service teachers treated the second action step almost as a game through which they created a fun/engaging, clear and fundamentally sound productions made us realise the potential of this approach for the development of personal movement skills and pedagogy.

6. Concluding Thoughts

The dynamic nature of the action research process is evidenced in this investigation with reference to modifications made from the first action step to the second action step. A minor modification in the work plan resulted in a profoundly different experience for pre-service teachers undertaking the second tutorial class. The modifications made also resulted in an action step that better linked to the 'so what' of this investigation. This investigation does not provide a definitive model for the development of teacher demonstrations of skill, however through the authors' personal experiences undertaking the research and the use of questions to extend the analysis a general statement can be made. To this end, by utilising a short looping online video host (Vine), pre-service teacher participants in this investigation developed demonstrations of movement skill that layered narration and movement patterns, focused viewer attention and made advanced pedagogical choices. In this way pre-service teachers advanced the quality of their instruction, and mediated the effect that challenging environmental factors have on instruction.

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Research and Analyse on the Teaching Reform of Histology and Embryology in Clinical Medicine Specialty

Cai Yinglan

（Department of Histology and Embryology, School of Medicine, Yanbian University, Jilin, China）

Abstract: Histology and Embryology is one of the important basic medical courses that medical students are required to take for the first time. The teaching methods and teaching modes suitable for the characteristics of this course are adopted to cultivate and stimulate students' interest in learning the course, which is of great significance to improving the quality of teaching. In the teaching process, the teaching mode, teaching content, and teaching method must meet the needs of modern medical personnel training. In recent years, we have focused on teaching reform from three aspects: teaching mode, teaching content, and teaching method, which improved students' interest in learning and autonomous learning ability, and then turned students from passive learning to active learning, which greatly improved the teaching effect.

Keywords: Medical education; histology and embryology; teaching reform, China

1. Introduction

Histology and Embryology is one of the first basic medical courses for a medical student. How to improve the teaching effect in the teaching process, how to make students have a robust interest in medicine, and how to promote students to be able to master the normal structure and function of the human body at all stages of life, and understand some clinical knowledge and scientific research methods, are important tasks for our teachers to meet and achieve the training goal of cultivating high-level specialized talents of compound application-oriented clinical medicine. Therefore, it is very important to improve the quality of teaching by adopting teaching methods and teaching modes suitable for the characteristics of this course and cultivating and stimulating students' interest in learning the course.

2. Features of the Histology and Embryology Course

Histology and Embryology is one of the important basic medical courses required for medical students. It includes two morphological disciplines, histology, and embryology, which are both closely related and independent of each other. Histology is the science that studies the microstructure and related functions of various cells, tissues, and organs in the normal human body by light microscope, electron microscope, and other techniques. Embryology is a science that mainly studies the process and mechanism of the development from a fertilized egg to a new individual, as well as the law of growth and change, and congenital malformations. The prerequisites for this course are medical cell biology and human anatomy, and the follow-up courses are physiology and pathology. The teaching purpose of this course is to enable students to acquire the basic knowledge and theory of the microstructure and ultrastructure of various normal cells, tissues, and major organs of the human body and their functional relationships, as well as the growth and development process of the human body through teaching, to learn other basic medical courses well, and to build a solid foundation in clinical medicine courses. Histology studies the microstructure, which can only be seen with the help of a microscope. During the learning process, students must restore the two-dimensional tissue structure observed under the microscope to a three-dimensional structure through spatial thinking ability. In addition, the teaching contents of histology are numerous, abstract, and boring. Therefore, to learn histology and embryology well, students are required to have certain spatial thinking and imagination ability.

3. Teaching Reform of Histology and Embryology

3.1 Reform of teaching mode

The teaching modes of histology and embryology in many medical schools are similar, and the teaching is divided into theoretical teaching and experimental teaching. The theoretical teaching is taught by many classes in large classrooms. The number of students is

large, and the classroom space is relatively large. One class describes a lot of theoretical lessons, so the teacher's teaching speed is faster, which may lead to Students are inattentive, difficult to digest and absorb the content of the class, and there is a lack of interaction between teachers and students, which affects the learning effect [1]. Experimental teaching is carried out in small classes. However, experimental teaching and theoretical teaching are not synchronized in content, and experimental teaching is arranged only a few weeks after entering theoretical teaching, which affects students' experimental results.

We have broken the original mode of large-class theoretical teaching and small-class experimental teaching. Each class combines theoretical teaching and experimental teaching into one, and the teaching content is synchronized and conducted simultaneously in the form of small-class teaching. Through the practical application in the teaching of histology and embryology in clinical medicine and other majors in our university's medical school in recent years, we believe that the small class teaching mode has the following three advantages.

First, the small class teaching mode has truly achieved the combination of theory and experiment: as a subject in morphological subjects, all knowledge points learned in theoretical courses need students to observe and verify with the help of microscopes in the laboratory. In the small class teaching mode, after explaining the knowledge points of the corresponding chapters, students directly observe and verify under the microscope and understand their microstructures, so that abstract theoretical knowledge is directly transformed into concrete, tangible and visible tissues and cells. Through this method of cross-integration of theory and experiment, it can intuitively help students to strengthen their understanding and memory. Compared with the original traditional teaching mode, small class teaching focuses on the combination of theory and experiment, which can reduce the burden of students and improve the learning effect of students.

Second, for a large class, due to the limitation of time and space, there is a lack of interaction between students and teachers, and students lose their initiative in learning, which affects the learning effect. In contrast, the small class teaching mode is conducive to promoting the interaction between students and teachers and stimulates students' subjective initiative.

Third, the small class teaching mode is conducive to the reform of teaching methods: with the development of the Internet and multimedia technology, various colleges and universities are scrambling to carry out the reform of teaching methods such as flipped classrooms, case teaching, and PBL [2-3]. These teaching methods require students' numbers to be small in actual teaching and are usually implemented in small teams of 7-8 people. Small class teaching provides the objective conditions required for the reform of various teaching methods mentioned above. After several years of practice, we have determined the basic process of the small class teaching mode. One teacher is responsible for one class, and each class is divided into several groups to conduct flipped classroom, case method, PBL, and other teachings.

3.2 Reform of teaching content

According to our university's talent training goal of "cultivating compound application-oriented talents", our university revised the talent training plan of each major in 2019, and the teaching plan of each major has also been adjusted accordingly. Based on the experience of other colleges and universities, the syllabus of histology and embryology for clinical medicine and other majors has been revised; at the same time, the teaching content has been reasonably arranged, and different clinical cases, problems, experimental projects have been added.

For example, the clinical cases of gastric ulcer and liver cirrhosis are increased in the digestive system, the clinical cases of myocarditis are augmented in the circulatory system, the clinical cases of glomerulonephritis are enlarged in the urinary system, and the problems related to urticaria are improved in the connective tissue, etc. In addition, in some chapters add hands-on lab projects. The syllabus divides students' learning requirements for the content of each chapter into three categories: "Mastery, Familiarity, and Understanding". During teaching, the teaching content that the syllabus requires to "master" is focused on, and the teaching content that the syllabus requires "familiarity" to be the secondary focus. The teaching content that the syllabus requires to "know" requires students to learn by themselves. In this way, the key points are highlighted, the priorities are clear, and the students' self-learning ability can be cultivated.

3.3 Reform of teaching methods

In the traditional teaching of histology and embryology, teachers teach students various microstructures and functions of the human body through language, and students use microscopes to observe the structural characteristics of various normal cells, tissues, and major organs. This traditional teaching method has defects such as too wide coverage of a class, too much information, and students may feel

boring when listening to the class. With the development of information and multimedia technology, various medical colleges are scrambling to reform teaching methods such as case teaching, flipped classrooms, and PBL. However, imposing a single pedagogical approach is not suitable for all basic medicine courses. Among the many teaching methods, according to the content of different chapters, we seek truth from facts and adapt to local conditions, and flexibly use the above-mentioned various teaching methods to match the content of different chapters and adjust the teaching methods according to the actual teaching factors. The reform of teaching methods can make students change from passive learning to active learning and improve students' learning interest and autonomous learning ability.

4. Conclusion

In a word, in recent years, we have accumulated and summarized some effective teaching methods and experience in the teaching of histology and embryology in clinical medicine. It is required that only by constantly improving ourselves, learning by ourselves, and researching and teaching in-depth, can we cultivate excellent compound application talents with strong comprehensive ability who meet the requirements of the training program.

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Author: Cai Yinglan is an associate professor at Yanbian University, mainly engaged in the teaching and research of histology and embryology. E-mail: ylcai@ybu.edu.cn.

Research on Management of Flood Disaster Medical Rescue Settlement Site in China

Liu Hao[1], Angelo Bunagan[2] and Bradley Goldie Loo[2]

（1. Henan Provincial People's Hospital, China; 2.Eternal University of the Philippines, Philippines）

Abstract: Flood disasters are not only the most common natural disasters in China but also frequent environmental tragedies in countries around the world. Effectively responding to and dealing with flood disasters, implementing emergency rescue for the first time, minimizing disaster losses, and protecting the safety of people's lives and properties are important responsibilities and missions of governments at all levels and emergency rescue forces. How do governments and emergency rescue forces at all levels deal with flood disasters, carry out emergency rescue and how to arrange disaster victims, and provide emergency medical rescue? How to resettle the affected people? How to manage the resettlement site environment? How to manage the chronic diseases of the affected people? This paper discusses in depth the core issue of medical rescue, including leadership responsibilities, organization and command, disposal procedures, settlement management, and medical assistance. Researching and discussing these issues has important theoretical and practical significance.

Key words: Flood disaster, medical rescue, settlements management, China

1. Introduction

Natural disasters occur frequently all over the world, especially in recent years, the occurrence of natural disasters has become more and more intense. According to Brussels, Belgium (Centre for Research on the Epidemiology of Disasters CRED's EM-DATE） database statistics (see Appendix: Figure 1), from 1990 to 1999, the number of global natural disasters averaged 250 per year; and from 2000 to 2010, the annual average The number of occurrences rose to 400. Natural disasters are becoming more frequent, and the number of people affected by natural disasters and the number of deaths also show an overall upward trend (see Appendix: Figure 2). The death toll from 1996 to 2005 was 473,209, while the number of deaths from 2006 to 2015 There was 543,994 people, an increase of 70,000. Among all kinds of major natural disasters, floods are the most frequent disasters, the widest impact, and the largest number of deaths. According to statistics, the annual losses caused by floods account for 55% of the total losses of various natural disasters worldwide [1]. In general, flood disasters are mainly referred to as flood disasters. Natural disasters occur frequently in our country. Every natural disaster causes serious harm to the survival and development of our people and the social environment on which they depend. Natural disasters are an important factor restricting the sustainable development of society and the economy.

The total area of areas threatened by floods in China is 738,000 square kilometers, and the surrounding areas of the eight major rivers such as the Yangtze River have all suffered from floods. Floods often cause dikes and dams to burst and overflow. The most common flood disasters are river floods, urban waterlogging, and mountain floods. A large number of urban and rural residents suffered severe trauma and death because they were unable to escape in time. From 2011 to 2015, the annual average number of people killed and missing from flood disasters in China was 720 [2]. Flood disasters are often accompanied by complex secondary disasters such as mudslides and infectious diseases, causing rescue difficulties and great dangers, and rescuers are also facing the threat of disease and trauma.

Disaster medical rescue is the process of medical rescue under disaster conditions. The main tasks are: rescue the wounded at the disaster site, provide emergency medical assistance to the people in the disaster area, health and epidemic prevention in the disaster area, post-disaster psychological barrier treatment, post-disaster reconstruction, and medical training [3]. With the development of rescue medicine in China, more nurses have joined the flood disaster rescue scene as the main members of the rescue team. As nurses have professional rescue knowledge and skills, they have become an important part of the

disaster medical rescue team. When a disaster occurs, nurses will take on multiple roles such as disaster responders, decision implementers, information providers, classified inspection personnel, care providers, health educators, etc., and their effective participation in strengthening the preparation and response to disaster emergencies plays an important role in reducing the mortality, morbidity and disability rate of the disaster-affected population, and has an important role in the recovery and reconstruction of the disaster area [4].

With the popularization of precision medicine, precision nursing and other concepts and the refinement of rescue standards, flood disasters are a common task faced by rescue teams, and it is necessary to study and establish flood disaster resettlement points under the background that there is a significant difference from geological disasters such as earthquakes. The management system provides a guarantee for the life safety of disaster relief personnel and disaster-stricken people, focuses on solving the physical and mental health of the disaster-stricken people, and forms a useful modular supplement for the overall construction of the disaster emergency management system. To this end, this study analyzed the needs of medical emergency rescue missions based on the systematic analysis of the physical and psychological characteristics of the affected people and constructed a flood disaster resettlement point management system to provide a reference for the medical rescue work of flood disaster resettlement points.

2. Emergency Management of Floods

Effectively responding to and disposing of flood disasters, disaster prevention, mitigation, and disaster relief are not only the statutory duties of the people's governments at all levels but also an important manifestation of the people's governments to promote the modernization of governance systems and governance capabilities. It is a dynamic process, so it is necessary to follow the disposal procedures, but also to respond flexibly to changes in the disaster situation.

2.1 People's governments at all levels have leadership responsibilities

Article 38 of the "Flood Control Law" stipulates that "the flood control and flood fighting work shall implement the system of administrative heads of the people's governments at all levels, with unified command and hierarchical and sub-departmental responsibility." People's governments at all levels are the administrative leading agencies for emergency

response work, and their offices and specific responsibilities are stipulated by the State Council. "According to the unitary national structure and the principle of territorial and river basin jurisdiction, emergency response to floods of different scopes and degrees is governed by the State Council. The people's governments at different levels have unified leadership [5].

2.2 People's governments at all levels set up flood control and drought relief headquarters

Flood control and drought relief headquarters at all levels, as the command organization, should perform the duties of emergency response headquarters under the leadership of the higher-level flood control and drought relief headquarters and the people's government at the same level after flood disasters occur. Due to the wide range of flood disasters, a large number of disasters, and the content of disposal, it also covers many links such as dispatching and commanding, personnel transfer and placement, the rescue of property and supplies, epidemic prevention and killing, and post-disaster recovery and reconstruction, covering almost all aspects of social and economic life. Therefore, Flood prevention and drought relief headquarters are usually composed of emergency management, public security, civil affairs, water conservancy, health, meteorology, transportation, electricity, radio and television, communications, local garrison, Ministry of People's Armed Forces, and other departments, and other departments such as health and epidemic prevention, public security, transportation, etc. The department assists in the treatment of the wounded, transfers, and resettlement of the masses, restore transportation, etc., works together to rescue and rescue disasters, and restore production and life as soon as possible [6].

3. Management Settlements
3.1 Personnel management
3.1.1 Disaster-affected people

All resettlement personnel should abide by the relevant management system of the resettlement site, obey the management, and prohibit going out without permission, to prevent personnel from being lost or accidents, and to prevent the disaster-affected people from returning to the disaster area due to fear of their homes and causing secondary personal injury. Pay attention to the physical condition of the elderly, the weak, the sick, the disabled, and the pregnant people in time, and assist in daily life, according to their special circumstances, and give special care under the circumstances of asking everyone to understand.

3.1.2 Volunteers

You must have a spirit of dedication, strictly implement the rules and regulations of volunteer service in resettlement sites, perform your duties strictly, not leave your post without authorization, do a good job of communicating and liaison for the disaster-affected people, respect the elderly, love the young, and help the weak. If you don't understand, don't know, have doubts, etc., you must promptly ask others or direct superiors for instructions, perform them correctly, and do not blindly implement or convey wrong information, which may lead to management confusion. If you feel unwell, report to the resident staff in time, take corresponding measures to avoid overwork and work under the premise of ensuring physical and mental health.

3.1.3 Government personnel

As a government official, to do a good job in the prevention and control of the epidemic, the management requirements are to meet the purpose and regularity, that is, to uphold the spirit of science and rationality when adopting personnel control methods, starting from the spiritual level, and establish the establishment of the concept and consensus of "", to create a social atmosphere of mutual benefit and mutual respect. In addition, it is necessary to follow objective laws when adopting personnel control measures, so that relevant measures are guaranteed by the system, are feasible, and can be implemented. Adhere to the same treatment, do a good job of information feedback and compensation for losses. Establish a good image of the national government, live in the disaster area, handle emergencies at any time, serve the people well, report the situation in the disaster area in time and accurately, and do a good job of communicating with the people affected by the disaster.

3.1.4 Medical staff

Be on duty 24 hours a day, be in an emergency at any time, obey the arrangement, and have the knowledge and ability of disaster rescue, speed up the speed of pre-inspection, sub-inspection, and transfer, and improve the first aid efficiency of the entire disaster emergency system. Prior to emergency response, repeated training is required. Through targeted training on key areas before the flood season, the training content has changed from training in operational skills to knowledge related to the prevention of common diseases in flood disasters, making the training more targeted and possible. Let every nurse participating in the rescue master the use of equipment and equipment required for flood disaster rescue, the nursing methods of common flood disasters, and the health education knowledge of related disease prevention, and prepare for the flood season in advance, thereby improving flood disaster disasters of nursing responsiveness.

3.2 Management of things

3.2.1 Material guarantee

Only when the material guarantee is sufficient and the actual needs of the controlled personnel can be met, the relevant measures can be taken. For this, the following points need to be done:

One is to reserve urgently needed materials. First, it is necessary to clarify the situation of existing resources, that is, to determine the list of existing resources available for use, and to know the existing resources; second, it is necessary to promptly supplement the shortage of materials to ensure food, medicine, etc. in the controlled area. Necessity production enterprises can operate normally [7].

Second, handle the distribution of materials. The distribution of materials should be timely and efficient. For medical materials, priority should be given to quarantined patients in hospitals and front-line doctors; for living materials, it should be possible to ensure that the terminal outlets of pharmacies, supermarkets, logistics distribution, and other materials in controlled areas Unblocked, severely crack down on price-raising behaviors, and ensure that it can be effectively provided to residents subject to flow control [8].

Third, maintain the unblocked flow of special supply channels. During the period of personnel control, the lives of some special groups (e.g., mentally handicapped groups, pregnant women, groups in need of dialysis, elderly people with inconveniences, nursing homes, etc.) have been severely affected, and support for them should be treated with special circumstances. , Arrange appropriate specialized personnel to be responsible [9].

3.2.2 Food safety management

All donated foods shall be properly stored within the validity period, checked by a designated person, and distributed truthfully. The restaurant serves three meals at regular intervals to ensure that everyone can eat. The meals should be free from spicy and irritating. The ingredients must be guaranteed. Once an adverse event occurs, the consequences will be serious. Hot water is supplied 24 hours a day, and hot water tanks are placed on each floor for easy drinking. Milk powder should be provided for left-behind infants and young children to ensure their diet. If in summer and autumn, the resettlement site can supply mung bean water and traditional Chinese medicine anti-heat tea every day to prevent the occurrence of diseases. If there are new

people who are affected by the disaster temporarily and the food is not enough, they should be provided with convenience food to satisfy their hunger and ensure their diet.

3.2.3 Donation management

Vehicles transporting donated items must be registered and disinfected before entering and exiting the resettlement site before entering the resettlement site. Donate items, ensure that the accounts and items are consistent, unified management, and unified distribution. A special account is responsible for the distribution and registration of the goods of the disaster-stricken people, ensuring that every household in each household can lead the basic daily necessities, to avoid dissatisfaction caused by the lack of distribution. The elderly and the infirm should increase the thickness of the bedding according to the situation.

3.3 Environmental management

3.3.1 Management of epidemic prevention and elimination work

It is often said that there must be a major epidemic after a major disaster. Especially after the flood disaster, if the disinfection and epidemic prevention work is not done well, epidemic diseases are prone to occur [10]. Flooding, dirty water, sewage, animal feces, etc. will pollute the water source and living environment, leading to the breeding of bacteria, mosquitoes, and flies. If disinfection and epidemic prevention is not in place, it is easy to cause infectious diseases such as malaria, dysentery, schistosomiasis, cholera, hepatitis, and Japanese encephalitis [11]. Therefore, the personnel of the epidemic prevention department shall carry out comprehensive disinfection every day, and the disinfection liquid ratio shall be configured in strict accordance with the concentration requirements of the National Health Commission to ensure the safety of the affected people in the resettlement sites.

3.3.2 Public area management of resettlement sites

When conditions permit, ensure the normal use of water and electricity. Volunteers are responsible for the sanitation in the hospital, and the garbage needs to be cleaned up regularly by a special person in charge to keep the environment of the resettlement site clean.

3.3.3 Management of the dormitory of the disaster-affected people

Men and women live separately, which is convenient for the daily activities of the affected people and convenient for management. The distance between indoor beds is required to be ≥1 meter to avoid cross-infection and cause the outbreak of infectious diseases. Left-behind children or left-behind elders need to be arranged on a family basis, and designated persons are responsible for convenient care. Two-bedroom chiefs are selected for each room to help the weak and to ensure hygiene and cleanliness in the room and the corridors of the corresponding floors.

3.4 Medical rescue

3.4.1 Standardized management of medical points

The medical point is set up in the resettlement point. It is necessary to formulate rules and regulations and emergency response plans, standardize the classification and placement of items in the clinic, prepare adequate emergency supplies and medicines, and have medical staff on duty 24 hours a day. The personnel on duty must have first aid capabilities and master first aid techniques. To ensure the safety of the victims of the disaster.

3.4.2 Flow regulation of chronic diseases

Go into the disaster-stricken people, visit one by one, and do registration. Hold free clinic activities, focus on screening people who currently need urgent treatment and potentially dangerous complications, and contact hospitalization for treatment. It also registers the medication status of people with chronic diseases such as hypertension, diabetes, and coronary heart disease, and prepares enough medications at medical centers to distribute them daily to solve the medication problems of people with chronic diseases.

3.4.3 Special population care

Daily checkups are carried out for bedridden patients with consciousness disorders among the disaster-stricken people in the resettlement sites, instructing nasogastric feeding, passive movement of the limbs, to prevent venous thrombosis of the lower limbs and limb disuse syndrome, and strengthening skin care to prevent the formation of pressure sores. For the elderly in nursing homes among the disaster-stricken people, special personnel are required to take care of them. Medical staff will check the bodies of the elderly regularly, carry forward the fine traditions of the Chinese nation, respect the old and love the young, and make them feel that the elderly is dependent and supported. The country will always be our strongest backing.

3.4.4 On-site search and rescue medical support

Follow the rescue team to search and rescue, carry out chronic disease flow adjustments to the disaster victims in the left-behind villages, conduct free consultations on the spot, provide rehabilitation and diet guidance to the people after cerebral hemorrhage, cerebral infarction, etc., distribute chronic disease drugs, and solve the problem of medication.

3.4.5 Extended training on first aid techniques

The medical staff at the resettlement sites need to strengthen the training of volunteers' safety and first aid techniques. Most of the volunteers are students at school, and they do not have enough awareness of their own prevention awareness. For the emotionally affected people in the resettlement site, the lack of communication will cause conflicts. Hurt. In addition, volunteers usually work and shuttle among the people in the resettlement sites, and when encountering emergency situations, they can implement first aid techniques in time to buy time to save lives.

3.4.6 Psychological counseling

Due to the sudden occurrence of floods, local medical and health institutions and other infrastructure were damaged, medical institutions in the disaster-affected areas had insufficient medical capacity, and road damage and other reasons made it difficult for medical teams and other rescue teams to enter. Other living resources are transported to the disaster area, which cannot meet the needs of patients in the disaster area [12]. In addition, flooding can cause houses to collapse. Even if they do not collapse in the flood, most of them will become dilapidated houses after being flooded. Food and livestock have suffered heavy losses. Most of the people affected by the disaster are emotionally anxious, especially the elderly, who see that the home they have worked so hard to manage all their lives have been destroyed, and they have basic illnesses and weep bitterly.

As medical workers, we must provide psychological counseling and export more positive energy from our country, so that they can regain their confidence, believe in our country and the strength of the people, and they will surely overcome all this and rebuild their homes.

4. Conclusion

With the changes of the times, the development of information technology, the advancement of medical care, the spectrum of diseases caused by disasters is also developing.

There is a change. After the flood disaster occurs, due to the overflow of excrement and urine, the decay of the corpse, and the serious water pollution, if sanitation and epidemic prevention are not in place, it is very easy to cause the epidemic of infectious diseases [13].

As a member of the medical rescue team, paramedics often arrive at the frontline of flood disaster relief for the first time. Since Nightingale announced to the world the role of nursing staff in war rescue, nursing work has never been far from the field of disaster rescue. The nursing staff has a long history of participating in disaster relief. Nurses who participated in disaster relief in the early days may not have received professional education and vocational qualifications, but their work is similar to that of today, that is, they pay attention to injured patients, ensure water, food, and clean beds. Supply, relieve pain and express care [14]. During the flood disaster emergency period, mastering the skills and knowledge related to first aid and emergency handling provides the basis for saving lives with all efforts. Due to the complex disaster characteristics of flood disasters, the comprehensiveness and complexity of emergency response and rescue are determined [15]. However, under the unified leadership of the people's governments at all levels, as long as we comply with laws and regulations, follow procedures, work division and coordination, and one mind, we can overcome floods.

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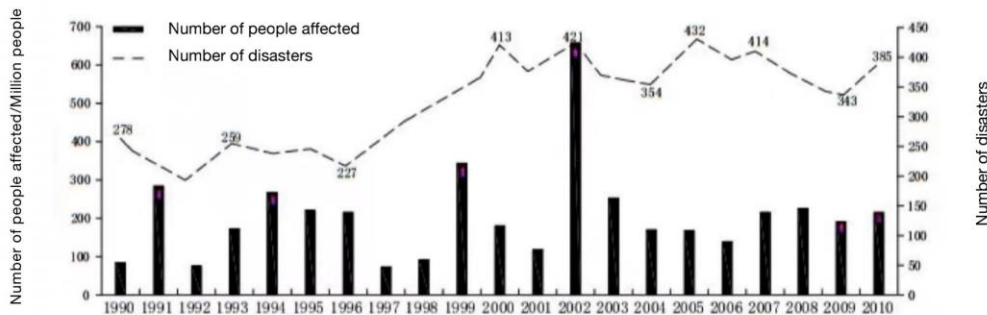
Appendix: Figure 1 and Figure 2

Figure 1 The number of global natural disasters and the number of people affected from 1990 to 2010
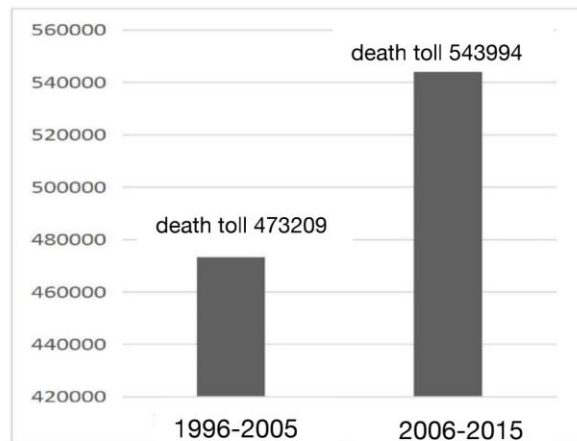

Figure 2 The global number of deaths due to disasters quoted from "Poverty&Death: DISASTER MORTALITY 1996-2015"

Development and Utilization of Tea Culture Tourism Resources in Jiangsu under New Tourism Formats

Huang Lingyun[1] and Rong Lihua[2]

（1. Humanities and Tourism Department, Zhenjiang College, Jiangsu, China. 2. Zhenjiang Experimental Primary School, Jiangsu, China）

Abstract: As a major Chinese province in tea cultural resources, Jiangsu Province has profound tea culture deposits and various tea cultural resources, but the tea cultural resources in Jiangsu have not been fully developed and utilized at present. The cities develop and utilize their relevant resources separately, causing the waste of resources and vicious competition in the market. Therefore, under the guidance of the development law of new tourism formats, the tea cultural tourism resources in Jiangsu Province are developed and utilized to meet the inherent needs of the market and the tourism industry. This paper puts forward that the development and utilization of tea culture tourism resources can mainly start from four aspects: integrating intangible cultural heritage and tea culture to improve the quality of tourism products; designing tourism routes for the mass and segmented markets; the artistic reproduction of tea culture; and creating distinctive tea catering.

Keywords: New tourism format; tea culture tourism; development of tourism resources; utilization of tourism resources

1. Introduction

At present, the tourism industry is undergoing unprecedented pressure and opportunities. First, the market competition is gradually moving from the source to the destination, and the purchase and development of destination resources have become a new trend in the tourism industry. Second, the tourism market in first- and second-tier cities have begun to sink, rapidly penetrating medium-sized cities and small towns, so the tourism industry needs to grasp the mass market. Third, the market is changing from Business-to-Consumer (B2C) to Consumer-to-Business (C2B) and is dominated by the needs of consumers. Fourth, the market is refining, both mass market and niche market should be paid attention to, especially to grasp the hierarchical needs of consumers in first- and second-tier markets. Therefore, we argue that combining the mass market and niche market, oriented by the needs of consumers, under the guidance of the law of new tourism format, the purposeful and targeted use of tea culture tourism resources in Jiangsu Province could quickly occupy the market, with twice the result with half the effort.

2. Development Status of Jiangsu Tea Culture Tourism

Tea culture tourism is an important part of cultural tourism. Jiangsu Province has the natural advantages of tea cultural resources, culture services for tourism, and enhances its level, while tourism provides a carrier for the inheritance and development of culture. But Jiangsu's current tea culture tourism is not prominent, the use and development of tea culture tourism are inadequate, mainly in the following two aspects.

2.1 Low utilization rate of resource development

The starting point of tea culture tourism is culture, the landing point is tourism. Although Jiangsu has a deep tea cultural heritage, tea cultural resources are not deeply integrated with tourism, the tourism market does not reflect the advantages of culture. At present, tea culture tourism in Jiangsu Province is still at the primary stage of appreciation, cultural penetration is not strong. It is mainly the natural landscape tours to the tea factory, tea plantations, or to watch tea performances at the existing cultural landscape, which is low participation of tourists. It not only could not meet the tourists' psychological need for knowledge, but also easy to affect the commercial tea marketing, and even make tourists resist, which is not commensurate with Jiangsu's tea culture tourism resources.

2.2 Lack of overall planning and design

At present, the province's tea culture resources are

not integrated, the municipal governments developed by utilizing existing cultural resources, while in some cities，it is even developed by the enterprise independently. The separated mode results in chaotic planning of resource layout and overlapped function, which is seriously limiting the sustainable and healthy development of tourism. Jiangsu Province is the main production and consumer area of green tea, so the homogenization of products is serious around, the regional characteristics are not distinct, and its lack of innovation, that is, the same tea plantations and tea performance everywhere.

3. Analysis of Jiangsu Tea Culture Tourism Resources

3.1 Jiangsu tea culture tourism advantage

3.1.1 Profound tea culture

Jiangsu is one of the first regions in China to form a tea culture. There is "replace alcohol with tea" recorded in The Records of the Three Kingdoms Reconds of Wu. Jiangsu was the main production place of Guzhu Zisun tea and Yangxian Xueya tea (Tea for the court in ancient China) until Tang Dynasty. Lu Yu stated in his Tea Scripture that the quality of the tea in Changzhou, Suzhou, Zhenjiang in Tang was good, and he had been to many places to investigate and live. There are numerous historical teas produced in Jiangsu, such as Dongting Biluochun and Huaguoshan Yunwu tea. In addition, A Dream of the Red Mansion shows the essence of tea culture in Jinling, the Eight Monsters of Yangzhou left countless tea poems, tea poetry, and tea paintings, showing the love of the historical literati for tea. Mao Mountain, Baohua Mountain show the unique color of religious tea culture. Therefore, the development of tea culture tourism in Jiangsu Province has a solid human historical background and a solid social foundation.

3.1.2 Rich Tea Culture Resources

Well-known tea, fine spring, renowned people, great works, and famous tea sets are all embedded in Jiangsu's tea culture. Jiangsu is blessed with natural conditions and its tea is high-quality, which is carefully cultivated and processed by generations of tea farmers. The well-known tea includes Bi Luochun (a green tea), Yuhua tea (a green tea), Jinshan green bud (Jinshan Cuiya), Taihu Cuizhu, Liyang white tea、Yixing black tea, jasmine tea, and other tea; as the saying goes that "what is the mother of tea", there are numerous spring resources recommended by the renowned, such as "the first spring", "the second spring", "the third spring", "the fifth spring"；Lu Yu, Su Shi, Li

Bai, Ma Shijun, Liu Bo Ruminant, Lu You, Wen Tianxiang, Wang Renkan, Zheng Banqiao, Shen Gui, all left tea poems, tea associations, tea writings in Jiangsu. Yixing clay teapots are unique among tea sets in that both the superiority of their raw materials and the cultural connotations of the pots display distinct regional characteristics.

3.2 Classification of Jiangsu tea culture tourism resources

The type of tourism resources in Jiangsu is divided into two categories: natural resources and human resources and is mainly human resources since humanity traces could be seen in the natural resources. Therefore, the form of cultural tourism resources, we summarize the tea culture tourism resources into two categories of material cultural resources and non-material cultural resources.

3.2.1 Material cultural resources

(1) Tea plantations and sites: Taihu Dongting Mountain, Lianyungang Yuntai Mountain, Wuxi Badoushan Tea Farm, Maoshan Mountain, Zhenjiang Nanshan Mountain, Huishan Gulong Kiln Site, Yangzhou Shugang Tea Site, Gugong Tea Farm Site.

(2) Well-known tea: Wuxi Hao tea、Taihu Cuizhu、Biluochun、Suzhou jasmine tea、Yangxian snow bud、Yunwu tea、Jinshan green bud、Yuhua tea、Timu lake white tea、Yixing black tea.

(3) Fine spring: Zhongling Spring, Huishan Spring, Huqiu Spring, Suzhou Xishan Spring, Daming Temple Water, Zhenjiang Guanyin Temple Water.

(4) Famous tea sets: Yixing clay tea sets, especially the teapots are most famous.

(5) Tea space: Nanjing Ming Palace Teahouse, Suzhou Qiantang Tea People (Teahouse), Suzhou Ou Garden, Liyang Tea Theme Park, Lishui Fujiabian Science and Technology Park.

(6) Museum: Jiangsu Tea Culture Museum, Wuxi Shuaiyuan Pottery Museum, Yixing Yangxian Tea Culture Museum, Yixing Ceramics Museum, Jiangsu Tea Expo Park.

3.2.2 Intangible cultural heritage

(1) Festival: Taihu Biluochun Cultural Festival, Doushan Taihu Cuijhu Tea Festival, Nanjing Yuhua Tea Festival, Liyang Tea Tourism Festival.

(2) Folklore: Baked bean tea from Tai lake, flavored tea from Suzhou、pottery making.

(3) National intangible cultural heritage: Bi Luo Chun tea-making techniques, pottery making techniques.

(4) Literature: Tea appears in works such as Tang poetry and Song poetry, calligraphy and painting, music,

novels, songs, dance music, and other works, such as "Erquan Yinyue", "Huishan Tea Party Painting", "Samovar Painting", "Taste Tea Painting", "Song Pavilion Trial Spring Picture", "Try Huishan Spring", "Jian Qianzhi", Taste Huishan Spring, etc.

(5) Renowned people: Lu Yu, Li Bai, Su Shi, Lu You, Wen Zhengming.

(6) Historical allusions: Sun hao replace the alcohol with water, Shan Daokai drink tea, Lu Na beat his nephew, and Li Deyu and Hui Shan Spring.

(7) Tea and religions: Suzhou Shuiyue Temple, Mao Mountain, Baohua Mountain Longchang Temple, Daming Temple, and Jiming Temple.

(8) Myth: Origin of Biluochen tea, "Biluo girl", "A name given by the emperor", the origin of Yuhua tea "Elderly lady sell tea".

Tourism activities with tea culture as the theme involve a series of tourism activities such as natural sightseeing tourism, tea and tea sets making experience tourism, cultural tourism, folklore tourism, rural tourism, religious tourism, and festival tourism.

4. Jiangsu Tea Culture Tourism Development Strategy

4.1 Integrating tea culture resources and planning by region

The closed area makes similar culture. Regional planning can avoid duplicate construction and cross-use of resources, reduce homogeneous vicious competition, and facilitate mutual benefit and win-win between regions. The tea culture tourism could be divided into three regions based on their characteristics, which will create a model of in-depth participatory tourism in Suzhou, Wuxi, and Changzhou, with Suzhou as the center. In other words, it is a whole chain of development and utilization from the natural environment to the human environment with experience and participation as the main theme. To build an ecological and science education-oriented tourism mode of Ningjing-Zhenjiang-Yangzhou region with Nanjing as the core; To create cultural tourism with coastal characteristics with Liangyungang as the center. Each region has its own focus to meet the diverse needs of tourists.

4.1.1 Integration of resources in the region

From the perspective of material culture, to reconstruct the tea plantations and tea mountains in Jiangsu and determine a tea garden of Suzhou or Nanjing as tourism sites, referring to the tourist tea garden mode of Taiwan, Japan, Singapore, and other places to utilize the natural landscape of hills and

mountains, and ensuring the tourists visiting routines and activities, such as tea picking or tea making on-site.

From the perspective of non-material culture, an expert group should be established. The experts should lead to digging deeper into the local folklore, literary works, celebrities, and allusions through literature, fieldwork, research, the cities should coordinate with each other to integrate the tea culture resources in the province.

4.1.2 Regional planning with a focus

The integrated resources of all regions should serve Suzhou, Nanjing, and Lianyungang with Suzhou and Nanjing as the center to focus on building a comprehensive model of the tea industry in Suzhou that integrates cultural display, leisure, and vacation, and visiting experience, and Nanjing's tourism mode with sightseeing and science popularization as the core. The feature of regional tea culture is distinctive, after developing a radiation effect, and then drive the common development of the surrounding cities.

4.2 Utilize and design the resources effectively

4.2.1 Integration of intangible cultural heritage and tea culture to improve tourism production quality

Jiangsu Province has much intangible cultural heritage, with 10 UNESCO "masterpieces of the intangible cultural heritage of mankind", ranking first in China, and 108 national intangible cultural heritage list, of which there are two national intangible heritage projects related to tea: green tea production techniques (Suzhou Dongting Mountain Biluochun Tea Production Technique) and Yixing clay teapots production technique. First, we could utilize the market effect of intangible cultural heritage to build tea culture tourism production, such as Yixing Jun pottery, colored pottery, black pottery, celadon production projects. Secondly, to integrate the tea and local intangible cultural heritage projects, for example, Suzhou could combine tea with embroidery, kunqu opera, dance to create local tea cultural tourism features. Thirdly, to declare the intangible cultural heritage actively, and to dig deep and create the non-heritage cultural characteristics of Jiangsu, focusing on creating two national tea culture non-heritage projects in Jiangsu.

4.2.2 Designing travel itineraries for mass and niche markets

To design distinctive tourism routines based on a different group and combined with mass markets. The needs of tourists are various, including sightseeing, interaction, learning, nature, culture, so the single route could not meet tourists' needs. We should design diversified tourism products and combine the products

from multi-dimension, to that the meet tourists' needs, such as health-conscious tourists, we can combine sports and leisure health organic.

Based on the tourist's needs, combined with niche markets, to make a private custom of tourism production and route, which is more precise to satisfy the tourists. But for a single tourism product, the design requirements are higher, such as Yixing pottery capital pottery making store, Suzhou Biluochun tea picking, and tea making a special trip.

4.2.3 Artistic reproduction of tea culture

To ask the experts to choose a proper tea culture to promote, and to reproduce it with artistic form based on history. To make the profound tea culture show the characteristic of a new era and to create a culture tour which visitors can touch, interact with and perceive. For example, referring to the 3D version of Along the River During the Qingming Festival in Shanghai World Expo, the ancient paintings could be three-dimensional and dynamic through light and shadow, three-dimensional technology. We could design the scene like a stage by a combination of reality and illusion, merging of ancient and modern, even the visitors could be one of the paintings. Visitors could have a virtual experience in real scenes from the sense of smell, taste, hearing, touch.

4.2.4 Create distinctive tea catering

Tea can be drunk only, also could match the cuisine, such as the traditional cuisine Longjing shrimp, it is a dish mixed tea with food. We can not only imitate the tea dishes recorded in ancient books, but also develop tea feast, and guide visitors to try tea food and tea pastry, which will bring and taste. In recent years, the tea beverage market is popular, such as Haytea, Alittle Tea, their flagship product cheese cover tea and dirty tea are all made from tea. Therefore, developing new tea drinks could become a market focus rapidly.

5. Coordination and Unity of parties

The development of tea culture tourism requires the cooperation of many parties such as the government, scenic spots, tour guides, and residents. The government

should unify planning, establish sound rules and regulations, improve hardware facilities, and strengthen investment in research and development of tourism products. Scenic areas need to upgrade their operation management and publicity. Tour guides need to be trained in tea culture knowledge, quickly improve their cultural connotations, and guide visitors properly and in-depth explanations. Residents should improve their literacy and create a sound social atmosphere.

On one hand, the development and utilization of tea culture tourism could broaden the dimension of tourism and promote local economic development, on the other hand, it plays a positive role to promote the local cultural undertakings and modern agricultural progress.

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Environmental Impacts of Fast Fashion

Angela Wan

（Palo Alto Senior High School, California, United States）

Abstract: In this paper, fast fashion is defined as inexpensive clothing produced rapidly by mass-market retailers in response to the latest trends, which is intended to frequently follow the newest fashion trend to update garment merchandise available in stores. It is found that although fast fashion granted more profit for clothing companies and affordable prices, and instant gratification for customers, the downside severely abbreviated the service lives for garments. Furthermore, fast fashion led to a huge amount of environmental impact, and impediments include global warming, excess garbage, water pollution, etc. In the paper, we explored different ways including recycling the use of fabric that can help with the current circumstances we are facing.

Keywords: Fast fashion, climate change, water use, global warming, recycling

1. Introduction

When it comes to fashion, girls are insatiable, and young women are especially the target of fast fashion. Fueling the demand are fashion magazines that help create the desire for new "must-haves" every season. Their closets can be easily full without being noticed. Fast fashion became common due to its exceptionally cheap price and expeditious manufacturing methods. But the environment is harmed in each step of clothing life. A leading textile magazine of Bangladesh published an article on 'Jhuta' (Waste) processing of Bangladesh's clothing industry. There is an estimation of 550 tons of garment wastes exported, mainly generated from the trimming of fabric in the garment industries every day. Thus, according to the World Resources Institute, approximately 1.2 billion tons of carbon dioxide is released annually due to fast fashion (WRI). Carbon dioxide, as we all know, is a potent greenhouse gas that contributes primarily to global warming (please see Fig.1 for the change of amount of new produced clothing worldwide.)

2. Overview of Environmental Impacts Brought by Fast Fashion

To realize the environmental impact fast fashion has brought to our planet, there were several studies from the World Resources Institute that focused on estimating the pollution and waste generated by fast fashion each year. All steps of the fabric life were put into analysis. One of the obstacles that led out of a solution to recycle fabric includes another investigation from the Trans-America Trading Company, one of the biggest of about 3,000 textile recyclers in the U.S. It is being noted that the textile recyclers separate used clothing into 300 different categories by type of item, size, and fiber content (Claudio, 2007).

2.1 Global warming

In recent years. Fashion has become more prevalent, new designs appear every week to satisfy the demand for the latest trend. But more waste is generated in this process. It has been estimated that there are 20 new garments manufactured per person each year and we are buying 60% more than we were in 2000 (Claudio). Large amounts of garments have to be made in an industry every day.

According to the World Resources Institute, it takes 2,700 liters of water to make one cotton shirt (WRI). This is a big part of the world's water issue. Textile production is also known as the most polluting industry. In the process of making textile, an estimated 1.2 billion of CO_2 is released. This is even more than the amount of CO_2 released in international flights (Please see Fig.2 for details). Most of these carbon emissions come from the manufacturing of synthetic fibers. Rapid production growth in Synthetic fibers has been shown since the twentieth century when they were introduced. Polyester is a great example of them. It has overtaken cotton and become the most common fabric used in garments. During the process of making Polyester, emissions produced are even higher than those produced from fossil fuels. In 2015, the production of polyester for textiles uses results in more than 706 billion kg of CO_2e. But how does the extra

fabric lead to global warming? The carbon dioxide that gets released into the atmosphere is a greenhouse gas that radiates heat. It gets trapped in the atmosphere to absorb the heat and release it gradually over time. Increases in greenhouse gases have tipped the Earth's energy budget out of balance. Earth's average temperature rises due to the additional heat.

According to NOAA's 2020 Annual Climate Report, the combined land and ocean temperature has increased at an average rate of 0.13 degrees Fahrenheit (0.08 degrees Celsius) per decade since 1880; however, the average rate of increase since 1981 (0.18°C / 0.32°F) has been more than twice that rate. This is all due to fast fashion.

2.2 Fabric waste and filling up our planet

But this is not all! An estimated 21% of annual clothing purchases stay in the home. It all goes to the garbage at some point. The volume of clothing Americans throw away each year has doubled in the last 20 years, from 7 million to 14 million tons. And alone in New York, more than 400 million pounds of clothes are wasted each year. Textiles can take up to more than 200 years to decompose in landfills. The environment is being filled up unnoticeably.

2.3 What produced all the excess fabric

Not all the waste fabric comes from old garments. Excess fabric produced in the process of making garments is also a huge part of the waste. Globally we produce 13 million tons of textile waste each year 95% of which could be reused or recycled. But do you wonder where they come from? First, in the fabric manufacturing process. Fabric is made in two main techniques, weaving, and knitting. In the knitting process, wastage trial run quantity, leftover yarn in cones, yarn in the machine tube, knitting defects, roll making, etc. The weaving process included warping, sizing, weft winding, and weaving. What can occur here is balance yarns in warping creel and cones, trial run quantity, weaving defects, roll making, etc. Another waste fabric producing process is the fabric cutting process, also the most crucial stage in apparel production, where most waste fabric is produced. The wastage that occurs in cutting may range between 10-15 %. It can occur due to excess lay length, poor making, excess overlapping or talking, poor cutting, etc. Additionally, the Apparel sewing process also produces waste fabric. When defective pieces do not meet the standards of the requirements of the customer, wastage in the apparel sewing often occurs. It can be due to seaming defects, stitch defects, assembly defects, poor workmanship, ironing problems, etc. This type of wastage is known as rejection.

3. Research Questions and Methods

In this study two main questions are addressed:

1.   What are the consequences of fast fashion and how has it affected our planet?

2.   What are actions we can do to prevent further deconstruction of fast fashion?

To answer the above questions, documents review and self-reflection are used as research methods for this study.

4. Recycling Fabric and Problems
4.1 Recycling Fabric

What we can do is find a niche for old garments in this increasingly competitive fashion market. "Eco-fashions." is what the International Standards Organization has defined as "identifying the general environmental performance of a product within a product group based on its whole life-cycle to contribute to improvements in key environmental measures and to support sustainable consumption patterns." Finding garments that meet the criteria of being environmentally friendly is what the ISO is always aiming for. Using sustainably grown textiles just among the lines of hemp, bamboo, cotton, and other fiber crops which require fewer inputs is one approach. They are grown in at least 13 countries. A manufacturer Survey by the Organic Trade Association shows that there was an estimated 22.7 percent increase in the sale of organic cotton fiber over the last few years. And the sales of organic cotton have also increased by 33%. Another approach is to "recycle post-consumer textiles". It is defined as the type of garment made from manufactured textiles that the original owner no longer needs to decide to discard (Hawley, 2006). Buying vintage clothing that was used and avoiding the unnecessary purchase of multiple clothing has a greater impact than choosing eco-friendly fabric. According to the United States Environmental Protection Agency (USEPA), an estimated 13.1 million tons of textiles are discarded by Americans annually. Of those, only 15% are selected to reuse and recycle. Ways to collect these clothes are through charities such as the Goodwill industry. The organizations successfully collected clothes due to the tax incentive offered by the U.S. government for citizens who donate household goods to them. Another way to collect the rest of the textiles is through regular curbside recyclable pickups. They are available all over counties. There are four main ways to collect clothes: reconstruct at the level of haute couture, resell via the vintage shop, export to

developing countries, use chemical or mechanical processes to break down the recycled fabric to fiber, and convert to new products. But the amount of clothing donated to charities directly used or sold in their thrift shops is only about 20%. They are then sold to textile recyclers at 57 cents per pound of which 60% of those are exported to foreign countries.

4.2 Problems discovered from recycling fabric

Problems came up in the process of these solutions. First, due to the fact, the clothes are collected from people all around the world with various sizes, items, and styles, it is a very difficult job for recyclers to sort them and put them into categories. For example, Trans-America Trading Company, one of the biggest of about 3,000 textile recyclers in the U.S., separates used clothing into 300 different categories by type of item, size, and fiber content (Claudio, 2007). Therefore, it could save time and labor expenses if a system can be invented to facilitate the collection and sorting of clothing.

Another obstacle that came up is that people still have a strong aesthetic smartness and newness regarding recycled fashion sold at vintage stores. It concludes that customers could be less discriminating in their preferences if we dive deep into concealing the potentially polluting nature of used clothing to transform them into new ones. Therefore, individual high fashion designers such as Martin Margiela and Gary Harvey strive to add aesthetic values to customize recycled fashion rather than just reselling them. The process of evolving sustainable clothing into styled fashion does seem successful. However, it does slow up the speed of producing garments due to the reliance on individual production systems. High fashion designers are at the elementary level of speed. Recycled fashion cannot be sold at the original low price due to the high labor cost and recycling cost. Thus, the vague development system for common practice is still the problem. With the boundary of the profitable market, there is a huge lack of strategies of how we can recycle products and transform them into new fast fashion products. And consequently, controlling the individual amount of clothing waste is very important. Imagine wearing what you buy and not causing any garment waste. This can reduce the waste amount by a tremendous amount. But the problem is still here. Fashion is not the only cause of this recycling problem. Growing up as a baby, our body changes so much that it is not our problem to buy more clothes of different sizes every year.

5. Other Problems Caused by Fast Fashion

There are also other ways that fast fashion is destroying the planet. The fashion Industry also produced more than 35% of the world's water waste (please see Fig.3 for more details).

The whole production process of our clothing requires a huge amount of water usage. Additionally, when we grow crops to make water-intensive materials, we are also using water. Especially when we make so much textile, we don't even use most of it. Only 95% of our textile waste could be recycled. Even after purchasing the garment, consumers produce a lot of water waste as well as wash their clothes more often than necessary.

Plastic is also a huge effect of fast fashion. We all know that single-use plastic bottles are bad for the environment. But how is that related to our clothes? Polyester is the most popular clothing material. But because it is a textile made of plastic, they are very uncomfortable. Not only do they have poor quality, but they also look cheap. Decomposing polyester also takes much more time than natural fibers. It is also one of the main causes of microplastic. Did you know that we are ejecting half a billion tons of microfibers each year by washing our polyester clothes? This is equivalent to more than 50 million plastic bottles!

6. Results, Discussions and Conclusion

But what can we do to reduce our fashion environmental impact? First, buy less! No matter what kind of "green" garment you buy, even the greenest garment uses resources when producing and transporting to you, creating some environmental impact. The simplest example can be made by comparing. We bought 10 while our grandmothers bought 2. I was always told by my mother that the clothes she has on today are older than mine. We, especially young women tend to think that buying new clothes will make us happy, but maybe we should reconsider that and find some other foundations of our lifestyle.

Also, we can buy clothes from sustainable brands or vintage stores. In recent years, a lot of fashion brands are taking into consideration the environmental impact of their production. The more sustainable clothing we buy, it will be more available. Just among the lines of the rise of organic food. As I mentioned earlier, re-selling old clothes in vintage stores can help our current situation. It is not a new concept, and these stores can be found all over the world. A lot of websites and apps like amazon also offers second-hand options. You can

also swap clothes with your friends. This is an economic and eco-friendly way to refill your closet with new clothes.

Additionally, think twice before throwing away your clothes. Instead of throwing your clothes in the normal bins, try to repair them. You can redesign clothes that you don't like! Or you can donate them to charity!

Lastly, decrease washing time. Washing our clothes has a significant environmental impact. The average household does almost 400 loads of laundry every year, consuming about 60,000 liters of water. It also takes a lot of energy to heat the washing water and run the drying cycle.

The government should also increase taxes on people who buy a lot of clothes and throw them away. Also, to companies that don't use sustainable materials on garments and pollute the environment, there should be specific laws to prevent these issues from happening.

To sum up, everything that has been stated so far, fast fashion does help have several benefits, but the drawbacks of fast fashion are way more than the advantages. Fast fashion is causing huge problems such as global warming, excess garbage, water, and plastic pollution. But they are not irreversible. If we all take our steps, I believe our planet can be saved from fast fashion.

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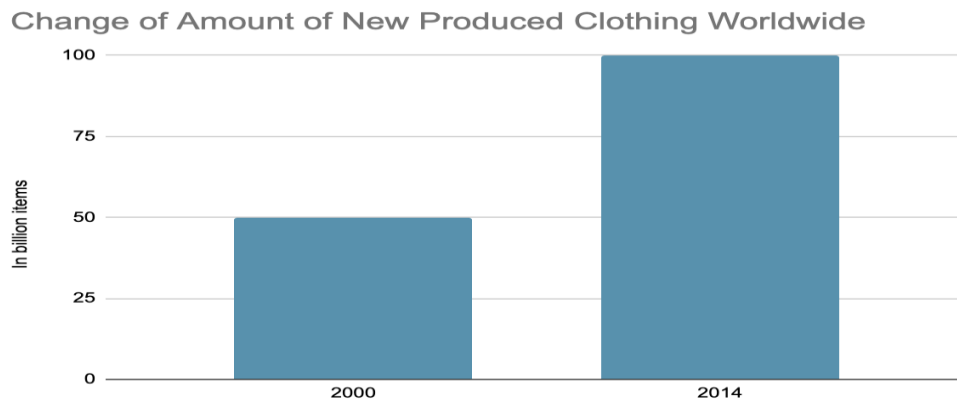
Appendix 1: Figure 1

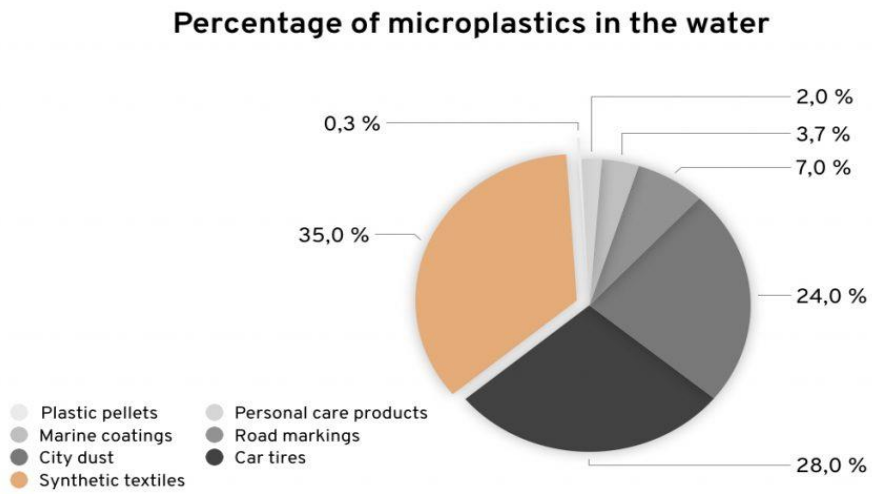*Source: Greenpeace. (2017): "Konsumkollaps durch Fast Fashion"*

Appendix 2: Figure 2
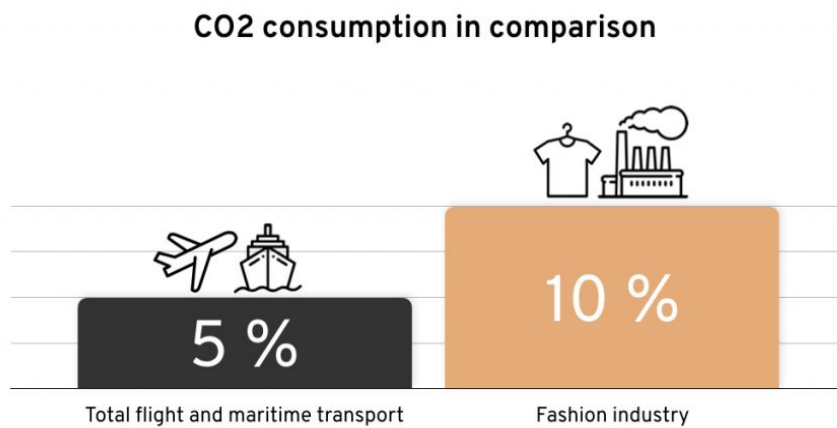
Sources: Ellen Macarthur Foundation. (2017). A New Textiles Economy. & EEA

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Appendix 3: Figure 3

Percentage of microplastics in the water

Source: IUCN. (2017). Primary Microplastics in the ocean.

Introducing Generation Y to the Wilderness

Nicole Taylor, Tonia Gray and Carol Birrell

（University of Western Sydney, Australia）

Abstract: Today's Western culture is characterized by high technology, time compression and a disconnection from the natural world. What happens when a group of young adult students who are firmly embedded within this world, embark on a 6-day unassisted wilderness experience? When divorced from the structural support of the everyday, and placed in an emotionally and physically taxing environment, one would imagine students would retreat to the security of the known world upon return. However, our study sheds new light on this phenomenon by revealing its antithesis. These students manifest a strong desire for a simpler life. What is the nature of the simpler life they envisage? What is its innate appeal? And what are the implications for those involved in Outdoor Education? Even if such a desire for a more primal existence were expressed, is it possible or probable, that this notion can be executed? Our research proposes that a necessary precursor for sustainable living and a deep attachment to the environment is for educators to provide experiences that strip back the superfluity of everyday life and introduce bare subsistence. This facilitates the transition into a heightened and more sensitive environmental ethic.

Keywords: Environment education, sustainable living, Generation Y, environmental ethic

1. Introduction

The very foundations of Western education are shifting dramatically in response to the developing world and the changing nature of the modern student. In order to keep pace with advancements in education and society, Outdoor Education in Australia also needs to ensure it remains relevant to current generations. Outdoor Education is both an educational subject and a process of facilitating outcomes, primarily concerned with developing the health and well-being of the relationships we have with ourselves, others, and with the natural world (Gray & Martin, 2012). Outdoor Education in the Australian educational context includes adventurous outdoor activities, developing skills for journeys in more remote settings and environmental knowledge development (Gray & Martin, 2012). Australian research has, to date, highlighted the benefits of outdoor adventure interventions across many domains, predominantly within the cognitive, behavioral and social well-being fields (Pryor, 2009).

However, through a rigorous systematic review of research within the Australian setting, Pryor (2009) identified other domains such as environmental well-being, emotional well-being, cultural well-being and spiritual well-being which were severely unaccounted for in Australian research. Particularly, Pryor (2009) was able to highlight the failings of current research to account for the impact the natural environment has in outdoor adventure interventions. In addition, a systematic review of global outdoor learning literature by Rickinson et al (2004) highlighted a significant gap in research; the need for deeper insights and stronger research evidence on the effectiveness of outdoor learning opportunities that offer adventure activities.

In order to address gaps in the literature, this research will propose to explore the impact an Australian wilderness experience may have on Generation Y tertiary education students. By observing the effects of such an experience specifically on Generation Y students, we may be able to better understand the influences of similar experiences on future populations. Currently there stands the opportunity to strengthen gaps in wilderness and Outdoor Education research, while integrating an entirely new perspective – that of Generation Y. Generation Y is profiled as being born between the early 1980's and the late 1990's and are identified as being vastly different to past generations, with the impact of generational change thought to be significantly greater in the 20th century than in any previous era (McQueen, 2010). Therefore, it was felt that a new lens was needed through which to view traditional Outdoor Education and wilderness experiences. This study was driven by a desire to understand what impact a wilderness experience in Outdoor Education could have

specifically on Generation Y students.

Initially, Generational Theory was addressed to illuminate the differences between Generation Y and past generations, in order to identify the significance of Generation Y's experience of wilderness. The goal was to conceptualise a profile of the Generation Y student, subsequently developing a phenomenological research design investigating the essence of student transformation, as a result of a wilderness experience during a tertiary Outdoor Education subject. This study explores the response from Generation Y students, after being placed in a physically and mentally challenging remote wilderness setting, devoid of the technology, networking and comforts of modern life as they know it.

The wilderness experience referred to is a grueling six day hike that covers a distance of approximately 120 kilometers from Katoomba in the Blue Mountains through to Mittagong in the Southern Highlands of NSW Australia. The Katoomba to Mittagong (K2M) hike is part of an Outdoor Education subject in a NSW University Course for pre-service training teachers. The K2M creates a unique environment for many Generation Y students, one free from mobile phones, the internet, Facebook and the pressures of daily life, where students are challenged in new and dynamic ways, facing true, authentic, risk taking. In a world where adventure and risk are tipped to be edited out of the modern experience (McQueen, 2010), the K2M is designed to expose participants to situations that are outside their comfort zones, where new experiences can enhance learning (Lyng, 2005).

2. Generational Theory

According to McQueen (2010), if we observe the 20th century, there are five main generational categories which attempt to classify and understand the common characteristics of a group of people that are born at about the same time (as seen in Table 1 below, adapted from McQueen, 2010, p. 14):

Table 1

Name	Birth Years
The Builders	Early 1900s – Mid 1940s
The Baby Boomers	Mid 1940s – Mid 1960s
Generation X	Mid 1960s – Early 1980s
Generation Y	Early 1980s – Late 2990s
Generation Z	Later 1990s - ?

In light of this, it was necessary to acknowledge an awareness of generationalism as having some limitations. A person's generation is only one factor in understanding their behavior (Davis, 1997). A generational profile is therefore a generalisation which is helpful in describing patterns of behavior within a cohort, rather than a rule without exception. This study accepts the patterns and trends of the significant majority in the cohort, while appreciating that there will be diversity and exceptions within the generational group.

3. Generation Y

The body of literature surrounding Generation Y is extensive in the fields of social research, business management and employment (McQueen, 2010); however, there are negligible resources available regarding how this generational profile applies specifically to Outdoor Education or wilderness experiences. Generation Y has been profiled in regards to their positive attributes and negative characteristics, predominantly by teachers, prospective employers and parents. For the purposes of this study, four dominant characteristics of Generation Y are highlighted to conceptualise how their paradigm differs from that of past generations and to function as a framework for comparison during data collection.

3.1 Tech Savvy

It is widely accepted that Generation Y are the most technologically savvy cohort the world has ever seen (Dyment, O'Connell & Boyle, 2011; McLoughlin & Lee, 2008; McQueen, 2010; Louv, 2008). Where older generations such as the Builders or Baby Boomers are often frustrated with or ignorant of modern technology, Generation Y have only known a world where access to and an understanding of technology and its instant gratifications are the norm (McQueen, 2010). These "digital natives" (McLoughlin & Lee, 2008, pg 10) are masters of technology who use social networking tools such as Facebook as a fundamental part of their academic and social lives. Generation Y are dependent on technology and instantaneous communication via a host of media as part of the always switched on culture permeating the group (Black, 2010).

In stark comparison to the high tech world that modern students are familiar with, this study observed the effects of disconnecting Generation Y students from this digital existence. While on the six-day hike in the Australian wilderness as part of an Outdoor Education subject at a NSW University, students had no access to the internet, social networking, mobile phones or any other technology which might aid their progression or distract from the realities of their experience. Students were required to navigate their way unassisted through

a remote, challenging bush wilderness which was quite foreign to their urban reality at home. It was hypothesized that upon returning home after the wilderness experience, students would immediately seek the familiar, instant gratification that technology and social networking bring to their communicative lives.

3.2 Disconnected from the Natural World

Current research suggests that younger generations are becoming increasingly detached from the natural world. A study in the United States (Hofferth & Sandberg, 2001) found that between 1997 and 2003 there was a 50% decrease in the amount of young people who spent time in outdoor activities such as hiking. Similarly, a study in New York revealed results indicating that younger generations are generally spending far less time playing outdoors than their mothers did when they were young (Clements, 2004). This phenomenon does not appear to be limited only to the United States, however, with research in Israel revealing a diminishing connection to the natural world in their younger population (Sebba, 1991), children from the Netherlands reporting a lack of contact with nature (Verboom, van Kralingen & Meier, 2004) and British children also, were found to possess more knowledge about Japanese cartoon character animals than native species in their local natural environment (Balmford, Clegg, Coulson & Taylor, 2002). These widespread results all tend to suggest a contemporary experience that is common to young people globally and Australian young people are no exception to this occurrence (Malone, 2008).

The aforementioned phenomenon spreading through the developed world has now been given a name. Nature Deficit Disorder is an expression conceived by Richard Louv (2008) in his work titled Last Child in the Woods. It is a term that refers to the cost of alienation from nature, including diminished use of the senses, attention difficulties and higher rates of physical and emotional illness. Louv (2008) presents a strong case for the growing concern that the child in nature is an endangered species and the health of children and the health of the earth are inextricably linked. This statement directly highlights the importance of our research in understanding the essence of how Generation Y students respond to a wilderness experience. Through this understanding lies a potential pathway to reconnecting young people and nature.

The basis of our study was focused on participant reflection of an experience that takes place in the wilderness, therefore it was deemed important to understand the psychological and emotional underpinnings between humans and the natural world. Examining this human – nature interaction required the application of a theory that explores how meaningful, caring relationships with nature have implications for Generation Y. To determine the impact of a wilderness experience, it seems crucial to develop an understanding of both the impact the natural world has on participants and how Generation Y conceptualise nature. Theories such as Attention Restoration Theory (ART) and Biophilia were important in addressing the relationship between Generation Y students embarking on a wilderness experience and the potential impact on their views and attitudes towards nature.

Biophilia theorises that humans have a genetically based need for affiliation with life in all its forms (Kellert & Wilson, 1993). In addition, ART proposes that nature helps refocus the mind, reviving the spirit, and that effortful directed attention can become fatigued in modern urban environments (Herzog, Black, Fountaine & Knotts, 1997). Studies centered on ART have found that direct exposure to nature has a restorative effect on humans (Felsten, 2009). These theories have direct implications for the human – nature connection of Generation Y students. This study was concerned with exploring the idea that Generation Y students could be 'unplugged' from the trappings of modern life by exposing them to a wilderness experience which could initiate a reconnection to the natural world. ART and Biophilia lend shape to the conceptualisation and discussion of the importance of human – nature relationships, separate from the common Western cultural notion of conceptualising nature as a resource (Stremba & Bisson, 2009). The underlying theory of the human – nature connection is relatively new to Outdoor Education wilderness experiences; however the concerns of our current planetary ecological predicament are encouraging researchers to find increasingly more effective ways of teaching for the natural world as opposed to simply being in it.

3.3 Time Compressed

Another characteristic of the Generation Y student identified in current literature is a fast paced lifestyle and overall time compression. For Generation Y, lifestyles have been getting faster in an attempt to increase personal productivity, and Honore (2004) believes that we have entered the phase of diminishing returns. Generation Y are empowered by choice and are commonly found to have weekly schedules that are as busy and full as their career driven parents (McQueen,

2010). They have been given every chance to experience all life has to offer. In turn, this has resulted in Generation Y leading an increasingly busy lifestyle in an attempt to not miss out on any opportunity afforded. This 'roadrunner' culture is taking a toll on everything from student's health, diet and work to our communities, relationships and the environment (Honore, 2004).

In contrast, the K2M wilderness experience undertaken by our Generation Y participants, in a sense simplifies life. They are removed physically and mentally from life at home, and are faced with the adversity of overcoming any challenges the Australian wilderness provides. Students are at the mercy of the natural world, and often find they develop new cyclical circadian rhythms, waking with the rising sun, enduring physical and emotional adversity during the day and sleeping not long after sun set. This routine is dictated by the innate cycles and rhythms within nature, and is often a far cry from the time compressed days and caffeine induced late nights in communicating via social media, to which Generation Y students adhere to.

3.4 Overprotected and Risk Averse

Interestingly, another significant issue which may be adversely affecting Generation Y is society's micromanagement approach to raising children. Current literature suggests that learning is enhanced by experiences which place individuals outside their comfort zones (Markos & McWhinney, 2003). This highlights a concern that hyper-vigilant parents of Generation Y are possibly eliminating adventure and risk from young people's lives, including the opportunity for children to find themselves outside their comfort zones.

The Comfort Zone Model commonly found in Outdoor Education literature is based on the belief that when placed in a stressful or challenging situation people will respond, rise to the occasion, overcome hesitancy or fear and grow as individuals (Luckner & Nadler, 1997; Brown, 2008). Of concern is the idea that we are living in a culture where adults are manipulating their children's lives based on their own fears, anxieties and agendas - the common agenda being that, childhood is too precious to be left to children, and children are too precious to be left alone (Honore, 2008). As a result of wanting the best for their children and a fear for their safety, many parents may be editing risk and adventure out of the modern life experience.

This social phenomenon now characteristic of the Generation Y student is in complete contrast to the wilderness experience undertaken by the participants in this study. The six-day hike demands that students face adversity unassisted, and make informed logical decisions under pressure where perceived risk is often confrontational and challenging for students. By taking participants out of their comfort zone and placing them in this unfamiliar wilderness environment, students are given the opportunity to have a life-changing and transformational experience.

4. Methodology

Essentially a qualitative study as it involves finding the "meaning that individuals give to a social or human problem" (Creswell, 2007, pg 37) this research begins to build on the lack of literature profiling Generation Y in a wilderness experience. Our study used phenomenology as the underpinning research strategy. The application of phenomenology as a research strategy is widely used and has been defined with different nuances by different authors. For Creswell (2007) phenomenology describes the meaning of a lived experience of a concept or phenomenon for individuals, in which multiple sources of evidence can be used. Similarly, Moustakas (1994) identified more specifically with one approach to phenomenology: transcendental (or psychological) phenomenology. This approach to phenomenology focuses less on the interpretation made by the researcher, and more on a description of the experiences of participants. Moustakas (1994) belied the researcher should set aside their own experiences, taking a fresh perspective of the phenomenon under examination as if for the first time. In contrast, for Van Manen (1990) who utilises the second approach to phenomenology, hermeneutic phenomenology, the process involves interpreting the "texts of life" (pg. 4). One of the hallmarks of hermeneutical phenomenology is a lack of rules or methods and a focus not only on a description of a lived experience, but interpretations made by the researcher (Van Manen, 1990).

This research is situated somewhere between the two approaches to phenomenological research. As researchers, we embrace the idea of describing our own experiences in relation to the phenomenon, but then continue by bracketing out personal views before proceeding with the experiences of others. We believe it is important to be transparent about our viewpoints and acknowledge them, then put these aside to get to the essence of the participants lived experience whereby interpretations can be made.

5. Research Design

The purpose of this phenomenological research is

to conceptualise Generation Y's experience of wilderness. In this study, the wilderness experience referred to is the 'Katoomba to Mittagong Hike' (K2M) in which Outdoor Education students at a NSW University participate in at the culmination of their program. For this study, twenty five Generation Y tertiary education students who have experienced the phenomenon in question – the K2M – were carefully selected to participate in the research. The Outdoor Education subject runs as an elective option for students studying a Bachelor of Education PD/H/PE at a particular NSW University. The K2M hike was introduced into the Outdoor Education subject in 1993, and has proceeded to develop an almost legendary reputation among Education students at the University. Participant's experiences of the K2M were collected to begin to conceptualise Generation Y's response to the wilderness.

Essential aspects of the phenomenological protocol included field procedures, question guidelines, analysis procedures and feedback procedures with participants. In this research, the database largely consisted of open ended questionnaires, interview transcripts and notes, audiotapes and reflective journals, which were classified and stored in a logical manner. A strategy employed to increase the validation of this qualitative research was to have prolonged engagement and persistent observation in the field (Creswell, 2007). Essentially, this included building trust with participants, learning their culture, and checking for misinformation. The researchers combined history of experience in Outdoor Education and wilderness environments at the tertiary level totals more than 30 years.

The participants for this study were chosen using criterion sampling to reflect individuals who have all experienced the phenomenon in question, thus allowing a forged, common understanding of the essence in question (Creswell, 2007). As the main purpose of this study was descriptive (Creswell, 2007) it was important that the participants represent the group of students being studied as defined in the operational definition (as having experienced the Outdoor Education elective at the University). We were able to recruit twenty five participants, ensuring data saturation (Guest, Bunce, & Johnson, 2006).

As well as fitting the criteria of being an Outdoor Education student at this particular University, essential criteria for participant selection included falling under the Generation Y profile based on age, having a gender balance and allowing access to personal journals for accuracy in reflection. Such a participant sample

provided triangulation through both data source and setting, thus increasing confidence in our research findings (Glesne, 1999). Snowball sampling was also a technique used (Cohen, Manion & Morrison, 2007), whereby participants meeting the criteria for inclusion in the study then put the researchers in contact with others who were suitable.

The primary source of data for this study was obtained through open ended questionnaires and personal interviews with individual participants. Due to the nature of this inquiry, semi-structured interviews with an interview guide approach were used, enabling a comparison of responses (Patton, 1990). The guide approach ensured that the same general areas of information were collected from each participant, providing a degree of freedom and adaptability in getting information from the interviewee. Moustakas (1994) identified two broad questions which we asked of all participants to focus attention on gathering data that lead to textural and structural descriptions of participant's experiences; 1) What did you experienced in terms of the phenomenon? 2) What situations influenced your experiences of the phenomenon? Participant interviews in data collection all began using these focus questions and then progressed to incorporate other open ended questions regarding how the wilderness experience had impacted participants in relation to the profile developed for Generation Y. These questions helped conceptualise what impact a wilderness experience had on Generation Y students.

In conjunction with open ended questionnaires and participant interviews, the data collection procedure included gathering additional documentation of the participant's experiences during the K2M. This particular Outdoor Education subject requires students to keep a record or journal throughout the duration of the term as part of an assessment task. These journals include reflections from before, during and after the wilderness experience. To add depth and clarity to the data provided in interviews, participant journals were collected and discussed as a form of member checking, to aid the recovery of memories and to clarify answers provided to the stimulus questions in interviews (Creswell, 2007). These journals provided a valuable insight into participants lived experiences and were an ideal way of checking that participants were reflecting in a true and honest manner.

As this phenomenological research design involved extensive data collection from twenty five participants, data analysis was undertaken concurrently with data collection. Reflecting on the data, organising

the data and developing clusters of meaning, was ongoing. Highlighting significant statements in interview transcripts that provide an understanding of how participants experienced the phenomenon (termed Horizonalisation) was used to write a textural description of what the participants experienced (Moustakas, 1994). These significant statements were also used to write a structural description of the context or setting that influenced how the participants experienced the phenomenon (Moustakas, 1994). Both the textural and structural descriptions were combined to develop an understanding of the essence of the phenomenon. Once participants were identified, our focus was to create rich, interconnected descriptions of the shared common experience. The underpinning process was focused on illuminating the essence of what takes place in this wilderness experience, with the aim of generating understanding relating to how this impacts upon Generation Y students.

Meeting basic criteria for trustworthiness and authenticity was a way to establish the quality of our research outcome. Based on the framework developed by Lincoln and Guba (1985) strategies previously mentioned such as identifying and bracketing out personal experiences, prolonged engagement, triangulation of data, developing rich description and member checking were all ways of contributing to the validity of the research. In the context of this study, ensuring that the outcome fairly represents the viewpoints of the Outdoor Education students from the University was crucial to the phenomenological research design (Creswell, 2007).

6. Results and Discussion

Participant interviews and reflective journals provided a rich description of many valuable issues that resulted from the student's experience of wilderness. The resultant data was coded to classify and interpret participant meanings, according to the four Generation Y characteristics identified in our profile framework. For the purposes of this study the codes were prefigured to align with the identified literature, however have also acknowledged additional, emergent coding categories, which surfaced during the analysis process. Examples have been provided of the key significant statements with their formulated meaning below in Table 2, which encapsulates the findings.

Table 2 Selected Examples of Significant Statements from Participants and Related Formulated Meanings

Significant Statement	Formulated Meaning
Being out in the natural surroundings made me feel like I belong there. Feelings and emotions when out in the bush are almost amplified because the distractions of the busy world are not there to smother them. You can work through your emotions out there instead of ignoring them. This was its innate appeal	Being in the wilderness removed the distractions of modern life and enabled clearer thought process.
For the next three days I 'hid' from the world because I didn't want to integrate back into the real world without those who I had shared this amazing experience with. I felt down for the three days. Describing the experience we had had to others was frustrating because words cannot describe what we had all gone through, what we had seen and how we had bonded together. In some ways the experience put a different perspective on my future, where I was at and where I wanted to be. It made me see life differently.	Depressed mood is a result of returning to 'normal' life.
It is more returning to the simple life, surviving off what you need, not what you want. Returning to the simple life reminds us that we don't need all those (extra) things to survive	The wilderness reminds us of the necessities in life.
The innate appeal was the fact that there are no worries. Life is no longer rushing, you just have to be content with being and enjoying all the little things you encounter. You are simply existing in the moment and enjoying everything that is happening at that point in time.	There is enjoyment in simply existing in the moment.
By the end of it I felt as if I had a connection with the bush... I loved being there and began to take everything in, sights, sounds and smells particularly... I hated being home, when I got back I was really depressed for a few days. I looked around and saw so many dickheads oblivious to what they were doing and how they were living their lives. I felt sorry for them. Society has too many pressures... There are external pressures which in a way force you to	The superficiality of modern life is not a necessity. Being immersed in the wilderness instilled a connection to the natural world.

go out and get a good job, make money, get a big TV, get a house/mortgage and work for the rest of your life. It's kind of the norm back in real life. The hike me realise you don't need any of that superficial stuff. On the hike there was none of that at all, the food tasted better, the air smelt cleaner; there was no pressure or responsibility. Life was sweet.	
It has definitely changed me, I have a massive urge to get back to nature. I hate that I rely on technology to make my life more exciting… You don't need that. Good company is the key to happiness. (I) Can't wait to get back into the bush.	A realization that technology can not be a replacement for human interaction.
The K2M placed me in quite an unsafe environment yet I have never felt so safe in my life.	The perceived risk in the wilderness was great, however the reality was perhaps less so.
It seems obvious to me now that risk is essential for growth and inspiration. When a person understands that what he or she has just done is risky, they will appreciate its challenge more, which I think has profound consequences for learning.	The wilderness experience instilled a sense of understanding risk and the benefits associated with risk taking.
You learn to appreciate simple biophilic relationship we have with the wilderness, you learn to find joy in overcoming fear, and you re-enter the world with a whole new lens. E.G. walking into the shopping center on day 6…feeling like an alien to the shoppers around me. Strange realization that our lives are filled with superficial things, and that wild places are insanely underappreciated.	Wild places are underappreciated.
It's about going in thinking that with only the basics you will survive and finding out you flourish instead.	Initial ideas of surviving in the wilderness were daunting. After the experience, perceptions changed and we realised we were ok.
Once lost and in the dark I became quiet and negative. My weaker side was beginning to show. They say you can judge a person's character by how	The experience was challenging and brought out your true character, strengths and

they react during the hard times. If people were judging me at that moment then I believe they would have compared me to a spoilt little teenager – not good.	weaknesses.

6.1 Facing Adversity

Prior to embarking on the K2M, many participants viewed their wilderness experience with some trepidation. Responding honestly and without hesitation, participants predominately envisaged that their trip would be "risky", "unsafe" and "daunting". A sense of apprehension was evident from participant reflections prior to departing on the experience. The K2M was viewed as being "out of our (participant) comfort zones", and in an "unfamiliar wilderness environment". Participants stated that both the environment and the task were foreign to their usual routines and lives at home. The experience pushed them out of their comfort zone and created a space where students were challenged both physically and mentally. The main outcome of being challenged this way was that participants felt they had a healthy new respect for facing adversity and taking educated risks.

6.2 The Simple Life

Participants identified that the wilderness demanded their attention and focus, thereby removing the distractions of modern life. One participant reflected on this phenomenon by stating that "feelings and emotions when out in the bush are amplified, because the distractions of the busy world are not there to smother them". It was generally accepted among the participating group that being out in the challenging wilderness environment removed them not only physically from their busy lifestyles at home, but mentally and emotionally. This removal, or disconnection, from the "real world" as some termed it, had participants realizing a simpler way of life and experiencing an innate sense of belonging to the natural world. One young woman described this as reminding her "how much the simple things in life can bring so much happiness when you have the time to notice them. In such a busy life back at home working, studying and trying to juggle everything, you become too distracted to simply appreciate friends and laughter. I can't remember the last time I laughed as long or as loud as I did out there (in the bush)". Participants felt that the experience showed them a simpler way of living, reminding them of the bare necessitates and removing the superfluity of 'real' life.

6.3 Connection to Nature

The wilderness itself was paramount to participant's experiences. A common theme arising from the data showed that the wild, bush environment encountered was one which participants were not overly familiar or comfortable with, and yet it was a connection that seemed to develop throughout the experience. One student stated that he learnt "to appreciate (the) simple biophilic relationship we have with the wilderness. Walking into the shopping center (afterwards) I was feeling like an alien to the shoppers around me. (I had a) strange realization that our lives are filled with superficial things, and that wild places are insanely underappreciated". Participants generally felt that they developed a deeper connection with the natural world and a greater appreciation for the benefits that can arise from being immersed in the natural world. Future studies could investigate whether or not this connection to nature, which was developed as a result of the wilderness experience, actually has an impact on an individual's future environmental stewardship. This research proposes that a necessary precursor for sustainable living and a deep attachment to the environment is for educators to provide experiences that strip back the superfluity of everyday life and foster these connections to the natural world. This could potentially facilitate the transition into a heightened and more sensitive environmental ethic.

6.4 Technology Re-Emersion

Another predominant theme arising from the data emerged from participant comments regarding Generation Y's technology use. When asked to describe what they were leaving behind prior to embarking on the K2M, a common reply was that they were "leaving behind technology". The general assumption among both researchers and participants was that there would be a level of withdrawal and frustration at not having technology to distract or assist students during their wilderness experience. However, our study revealed the antithesis to this phenomenon. The majority of students reflected on their experience stating that, in fact, they rather enjoyed the separation from their high-tech worlds at home. Students were reticent to reconnect to the high tech world they had previously craved. One student clearly explained this feeling stating "It has definitely changed me; I have a massive urge to get back to nature. I hate that I rely on technology to make my life more exciting… You don't need that. Good company is the key to happiness. (I) can't wait to get back into the bush". Comments indicated a realization and understanding among participants that technology can not be a replacement for human interaction. Another participant stated "All I want is my 15 sidekicks, a tent, fire and debriefing circle". She was referring to her feelings regarding her re-immersion back into the hightech, time compressed lifestyle she lived back in the "real world".

Generally participants did not look forward to reconnecting with technology upon their return home. One student in particular reported that he had removed his profile from Facebook and was no longer using the social networking site due to its lack of enabling a "real connection with other people. It all just seems so superficial and fake in light of the connections we made with each other out there".

The majority of participants also reported a sense of sadness or depression at returning back to their 'real' worlds. They were genuinely upset that their experience in the wilderness did not seem to be fully understood by friends and peers. The realization that they were not able to share the enormity of their learning and understanding was frustrating, with one student reporting that he "hated being home, when I got back I was really depressed for a few days". Another girl commented on the enormity of her learning from the experience stating "I lost 4 kilo's in weight but gained 4 lifetimes of knowledge and understanding". The data suggested that generally participants felt their learning had been profound as a result of their wilderness experience, and they were frustrated at not being able to make others understand this.

7. Concluding Comments

In depth interviews with Generation Y participants of the K2M indicated that students experienced a significant transformation as a result of their six-day wilderness experience. More specifically, participants described developing a strong desire for a simpler life. The simpler life was described as being one which relied less on the use of technology, was not as busy, where calculated risk taking was valued and where connections with nature could flourish and develop. Further, participants displayed a desire to form social connections and relationships with others that were "real and meaningful" as opposed to superficial networks developed via social media sites.

When considering this study within the context of prior research on characteristics of Generation Y and their experiences of wilderness many similarities and some startling new revelations were discovered. Participants confirmed much of the research earlier highlighted by authors such as Louv (2008) and

McQueen (2010), whereby technology has been suggested to inhibit deeper connections to the natural world. Generation Y students are comfortable with technology in their lives and thrive on constant access to technology. The removal of technology in such an experience can potentially be seen as a tool to help Generation Y students to move outside of their comfort zone, whereby learning can be enhanced. Further research into Generation Y and wilderness experiences could focus more specifically on investigating the ways that technology may impact on connections of young people to the natural environment. This study could also be a springboard into the development of ways to increase the desire in young people to develop a sustainable future.

The changing nature of Generation Y students and their response to a challenging wilderness environment presents interesting implications for those involved in Outdoor Education. With Generation Y students in this study displaying a desire for a more primal existence, we propose that a necessary precursor for sustainable living and developing a deep attachment to the environment is for educators to provide a context that focuses on the simple things in life and the benefits of 'unplugging' from technology and experiencing wilderness. This may facilitate the transition into a heightened and more sensitive environmental ethic.

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Evaluation of Water Quality Purification Effect of Constructed Wetland Based on Fuzzy Pattern Recognition Theory

——A case of Zhujiahe Constructed Wetland

Cao Rui, Yang Hong, and Li Xiaoyan

（Resource and Environmental Department, Xichang University, Sichuan, China）

Abstract: To study the water quality purification effect of Zhujiahe constructed wetland located in the Wetland surrounded Qionghai Lake, comprehensive water quality assessment model by making 6-level evaluation of water quality was performed in the study based on fuzzy pattern recognition theory. The water quality of inlet and outlet and the water quality purification effect of the Zhujiahe constructed wetland in wet season, normal water period and dry season were evaluated. The result shows that there were no purification effects during the wet and dry season but the normal water period. However, the water quality got better during the normal water period, but the water quality got worse during the wet and dry season, which could conduct that internal pollution sources took adverse effect to the water quality of the Zhujiahe constructed wetland.

Keywords: Fuzzy pattern recognition theory; Qionghai Lake; constructed wetland; water quality purification effect; water quality grade

1. Introduction

Water quality assessment is an important part of ecological health restoration of water environment. Domestic water quality assessment research started in the 1980s.[1] The main methods of water quality assessment include grey clustering method,[2] matter-element analysis method,[3] principal component analysis method,[4] pollutant exceeding standard method and optimal weight method.[5,6]Among them, the fuzzy pattern recognition theory uses the optimal relative membership degree to deal with the uncertainty problem, fully considers the complexity and variability of the water environment system, and can better reflect the objective fuzziness and uncertainty in the water environment, which has strong rationality [7], and is widely used in water quality evaluation [8-10].The upper limit of the traditional fuzzy recognition theory is 5 grades, which requires that the sample data should not exceed the 5 kinds of water quality standard values specified in the environmental quality standard for surface water (GB 3838-2002). In the process of water quality assessment, if some indicators exceed the five water quality standards, the results of the five-level assessment will deviate from the actual situation, which will affect the formulation and implementation of water environmental protection and water pollution control measures. Therefore, Wang Yuemin and Zhou Xianghua improved the fuzzy pattern recognition model and used the six level water quality evaluation model to evaluate the river water quality [11,12]. In the theory of fuzzy pattern recognition, the principle of maximum membership degree is usually used to judge the water quality level, which has certain inapplicability. Therefore, a literature proposed to use the level eigenvalue method to judge the water quality level [13].Wetland is known as the "kidney" of the earth, and constructed wetland is a method to simulate natural wetland ecosystem to treat sewage through artificial control conditions [14,15]. At present, there is no research on the water quality of constructed wetland based on the 6-level fuzzy pattern recognition theory [16,17]. Therefore, based on the 6-level water quality evaluation model, this paper uses the water quality grade and grade eigenvalue method to evaluate the import and export water quality of constructed wetland and the water purification effect of constructed wetland.

2. Fuzzy Pattern Recognition Model of Water Quality

2.1 Construction of Sample Index and Standard Value Eigenvalue Matrix

X is set as the collection of m samples, and there are n evaluation indexes in each sample; Y corresponds to the set of N evaluation indexes, each index is divided into C-level. The matrix R and S can be obtained by normalizing X and Y. In this study, only incremental indicators were involved (the level increases with the increase of the standard value of indicators), so the

formula for calculating the characteristic value of indicators is:

$$r_{ij} = \begin{cases} 0 & (x_{ij} \geq y_{ic}) \\ \frac{y_{ic} - x_{ij}}{y_{ic} - y_{i1}} & (y_{ic} > x_{ij} > y_{i1}) \\ 1 & (x_{ij} \leq y_{i1}) \end{cases} \quad （1）$$

$$s_{ih} = = \begin{cases} 0 & (y_{ih} = y_{ic}) \\ \frac{y_{ic} - (y_{i(h-1)} + y_{ih})}{y_{ic} - y_{i1}} & (y_{ic} > y_{ih} > y_{i1}) \\ 1 & (y_{ih} = y_{i1}) \end{cases} \quad （2）$$

Where: x_{ij} is the detection value of the i index of the j sample (i=1,2,…, n); It is the standard value of the i index of h level (1,2,…, c, c=6); r_{ij} is the index eigenvalue corresponding to element x_{ij} in matrix X, and its set is matrix R; s_{ih} is the corresponding index eigenvalue of element y_{ih} in matrix Y

2.2 Determination of Weight

Indicators and monitoring results have different effects on the judgment of comprehensive pollution degree of water quality, so it is necessary to determine the weight of indicators in the evaluation. The index weight is determined according to the pollutant concentration exceeding standard degree [18-20]. The more serious the exceeding standard degree is, the greater the weight is. The calculation formula is

$$w_{ij} = \frac{x_{ij}/a_i}{\sum_{j=1}^{m}(x_{ij}/a_i)} \quad （3）$$

$$a_i = \frac{\sum_{h=1}^{c} y_{ih}}{c} \quad （4）$$

Where: w_{ij} is the weight of the i index of the j sample; a_i is the average value of each index standard; C = 5.

2.3 Fuzzy Pattern Recognition

Based on the fuzzy pattern recognition theory, the membership matrix U can be obtained:

$$= \begin{cases} 0 & h < l_i; h > m_i \\ \dfrac{1}{\sum_{k=l_i}^{mi} \left\{ \dfrac{\sum_{i=1}^{m}[w_{ij}(r_{ij} - s_{ih})]^p}{\sum_{i=1}^{m}[w_{ij}(r_{ij} - s_{ik})]^p} \right\}^{2/p}} & l_i \leq h \leq m_i; d_{hj} \neq 0 \\ 1 & d_{hj} \neq 0 \end{cases}$$

$$（5）$$

$$d_{hj} = \left\{ \sum_{i=1}^{m}[w_{ij}(r_{ij} - s_{ih})]^p \right\}^{1/p} \quad （6）$$

Where: u_{ih} is the relative membership of sample j to level h; l_i 和 m_i are the lower limit and upper limit of

sample j, respectively; d_{hj} is the generalized weight distance between sample j and level h; p is Euclidean distance (P = 2)

2.4 Determine the Grade of Water Quality

According to the membership matrix obtained from the six grade water quality assessment, the water quality grade is determined according to the maximum membership principle.

2.5 Analysis of Water Purification Effect

The effect of water purification is simply judged according to water quality grade and grade eigenvalue method. The calculation formula of special grade eigenvalue is as follows:

$$H_j = \sum_{h=1}^{c} hu_{ih} \quad （7）$$

3. Evaluation of Water Quality and Purification Effect of Constructed Wetland

3.1 Overview of Constructed Wetlands

Zhujiahe river is the source of Qionghai lake. The water flow is very small. The data in this paper are based on the survey data of the river from 2015 to 2016. At that time, due to the relatively developed catering industry in Zhujiahe River Basin, the main pollution sources were catering wastewater and domestic sewage (at present, with the expansion of Qionghai wetland, the demolition work of Zhujiahe river basin is expected to be completed in 2018, all of which are included in the scope of wetland, and the upstream has been intercepted). Zhujiahe River Basin has flat terrain, very slow water flow in the middle and lower reaches, crisscross waterways, and has the characteristics of natural wetland. In order to reduce the adverse impact of Zhujiahe water quality on Qionghai water quality, Zhujiahe constructed wetland is built in the lower reaches of Zhujiahe river. The influent flows into the wetland through sediment sedimentation tank and biological purification tank respectively, and the effluent flows into Qionghai after passing through a section of natural wetland. During the investigation, it was found that the sedimentation tank had been covered by Eichhornia crassipes, and the biological ponds were mainly planted with Eichhornia crassipes, Gracilaria crassipes and myriophylla viridis.

3.2 Data Acquisition and Processing

In order to understand the water purification effect of Zhujiahe constructed wetland, the import and export water quality of Zhujiahe constructed wetland was monitored in wet season (September 2015), normal season (November 2015) and dry season (March 2016). The monitoring indexes mainly include CODMn, CODCr, BOD5, NH3-N, TP, TN and LAS; Three water samples are taken from each monitoring point and mixed into a water sample. Three parallel samples are taken for index determination, and the arithmetic average value is taken as the final monitoring data, as shown in Table 1.

3.3 Water Quality Assessment Based on 6-level Model

In the 6-level water quality evaluation model, the standard values of each index in the evaluation standard (environmental quality standard for surface water (GB3838-2002)) are standardized

in 6 levels, and calculated according to formula (2). The results are shown in Table 3. According to formula (1), the monitoring values of each index are normalized, and the results are shown in Table 2.

3.3.1 Standardization of Standard Value and Monitoring Value

In the 6-level water quality evaluation model, the standard value of each index in the evaluation standard is treated with 6-level normalization and calculated according to formula (2). The results are shown in Table 3.

3.3.2 Calculation of Index Weight

According to equations (3) and (4) to calculate the index weight, the results are shown in Table 4.

3.3.3 Index Membership

The calculated normalized values of indicators, weights and standard values are brought into the membership calculation formulas (5) and (6) to obtain the relative membership of water quality at different monitoring points in different periods, and the level characteristic values are calculated according to formula (7); The results are shown in Table 5.

3.3.4 Analysis of Water Purification Effect

According to the water quality evaluation model of grade 6, the water quality grades of the import and export of Zhujiahe artificial wetland are IV, IV, V, IV, V and V respectively in the flood, flat and dry water periods. From the water quality level, Zhujiahe artificial wetland has certain purification effect in the flat water period. The water quality is purified from the imported V-level to class IV, but it has no purification effect in the high water period and low water period. However, from the large scale of the grade characteristic value, the constructed wetland of Zhujiahe river has a certain purification effect on water quality in the flat water period; In the high and low water period, the water quality has been deteriorated to some extent, which indicates that the internal pollution of Zhujiahe artificial wetland has a negative impact on water quality.

4. Conclusion

Based on the theory of fuzzy recognition, this paper evaluates the water quality of Zhujiahe constructed wetland by using 6-level water quality evaluation model. According to the evaluation results, the inlet water quality of the constructed wetland is IV, V and V in wet, normal, and dry seasons, respectively. For the small, constructed wetland, the pollution load pressure is large, so it is suggested to intercept the upstream sewage.

In the evaluation of purification effect, the grade characteristic value can be used to judge the overall change of water quality in different monitoring points more accurately. According to the evaluation results, the water purification effect of Zhujiahe constructed wetland is obvious in normal water period; In dry season and wet season, the water quality of outlet is worse than that of inlet. It is necessary to strengthen the management and maintenance of the constructed wetland to reduce the adverse impact of endogenous pollution on water quality.

The comprehensive evaluation of water quality based on fuzzy pattern recognition theory is more suitable for the overall comparison of water quality in different monitoring periods or at different monitoring points. Under limited conditions, the priority treatment

decision of different regions should be made. According to the specific water environment, according to the single factor analysis method, the level and purification effect of different water quality indicators are investigated respectively, and the influence effect of various factors in constructed wetland on different water quality indicators is analyzed, which is more targeted to improve the quality of water environment.

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Author: Cao Rui (1985), female (Han), teaching assistant, Master of Engineering, mainly engaged in Plateau Lake wetland protection, soil pollution remediation, agricultural waste resource research. Email：xcxycaorui@163.com .Corresponding Author: Yang Hong (1968), female (Han), Liangshan Prefecture, Sichuan Province, Professor, master, research direction: plateau lake protection. Email:657073699@qq.com,18892877777.

Appendix: Table 1 to Table 5

Table 1 Water Quality of Inlet and Oulet

Monitoring period	Points	TP	TN	NH3-N	COD$_{Cr}$	BOD5	COD$_{Mn}$	LAS
Wet season	inlet	0.136	4.404	2.32	13.4	9.4	4.9	0.06
	outlet	0.202	5.452	3.64	17.5	12.2	5	0.06
Normal season	inlet	0.78	10.2	8.12	14.8	10.4	4.9	0.298
	outlet	0.213	1.99	1.09	19	13.4	5.9	0
Dry season	inlet	0.616	7.329	3.5	26.9	18.5	5.77	0.199
	outlet	0.673	5.679	4.23	30.2	20.5	5.45	0.38

Table 2 Standardization of Water Quality Index of Inlet and Oulet of the Zhujiahe Constructed Wetland

Monitoring period	Points	TP	TN	NH3-N	CODCr	BOD5	CODMn	LAS
Wet season	inlet	0.69	0	0	1	0.09	0.78	1
	outlet	0.52	0	0	0.90	0	0.77	1
Normal season	inlet	0	0	0	1	0	0.78	0.02
	outlet	0.49	0.01	0.49	0.84	0	0.70	1
Dry season	inlet	0.69	0	0	1	0.09	0.78	1
	outlet	0.52	0	0	0.90	0	0.77	1

Table 3 Standardization of Standard Value of Water Quality Index

Water quality grade	TP	TN	NH3-N	CODCr	BOD5	CODMn	LAS
I	1	1	1	1	1	1	1
II	0.89	0.92	0.91	1	1	0.92	1
III	0.66	0.69	0.68	0.90	0.93	0.77	1
IV	0.39	0.42	0.41	0.60	0.71	0.54	0.50
V	0.13	0.14	0.14	0.20	0.29	0.19	0
VI	0	0	0	0	0	0	0

Table 4 Weight of Water Quality Index of Inlet and Oulet of the Zhujiahe Constructed Wetland

Monitoring period	Points	TP	TN	NH3-N	CODCr	BOD5	CODMn	LAS
Wet season	inlet	0.285	0.310	0.292	0.172	0.172	0.310	0.286
	outlet	0.423	0.384	0.458	0.225	0.224	0.316	0.286
Normal season	inlet	0.366	0.303	0.214	0.178	0.180	0.204	0.244
	outlet	0.100	0.059	0.029	0.229	0.232	0.246	0
Dry season	inlet	0.398	0.397	0.265	0.267	0.268	0.354	0.214
	outlet	0.435	0.308	0.320	0.300	0.297	0.334	0.409

Table 5 Relative Membership Degree and Grade Feature Value of the Water Quality of the Inlet and Outlet of the Zhujiahe Constructed Wetland

Water quality grade	Wet season		Normal season		Dry season	
	inlet	outlet	inlet	outlet	inlet	outlet
I	0.107	0.079	0.043	0.125	0.059	0
II	0.129	0.096	0.050	0.133	0.070	0
III	0.219	0.168	0.075	0.171	0.115	0
IV	0.291	0.301	0.190	0.255	0.247	0.160
V	0.143	0.201	0.369	0.195	0.287	0.500
Level eigenvalue	0.112	0.155	0.273	0.121	0.223	0.340