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University-industry-government cooperation in the context of poverty alleviation in Shanxi Province, China



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Abstract

In recent years, the United Nations has emphasized the sustainable development goals (SDGs), and the Chinese government is also actively promoting the poverty alleviation, aiming to change the development mode of the underdeveloped regions and eradiate absolute poverty. In this process, prestigious universities have become an essential force to boost regional development. They provided various education programmes for students and various training courses for adults from all walks of life. Furthermore, they have cooperated with local government and enterprises to drive the transformation and upgrading of local economy from the perspective of industrial development, technical and scientific assistance, human resources assistance, and so on. They have adhered to the notion that the financial support is temporary, and only when the underdeveloped region owns its internal force could it be truly lifted out of poverty. This study aims to explore the contribution and influence of Higher Education Institutions (HEIs) in Chinese poverty alleviation from a critical perspective.

Underpinned by a constructionist methodology, this study conducted 18 semi-structured interviews with residents, local government officials, university students, and university staff members from Beihang University and Beijing Institute of Technology. This research includes the following parts: the analysis of summer camp programme, the cooperation between universities, enterprises and the local government, novel assistance strategies, and the prospect of Rural Revitalization. Furthermore, this study compares the assistance provided by two prestigious universities to the assistance provided by other organisations as local universities, NGOs, and doctoral students service group in Lvliang.

This study finds that though higher education institution was not the original driver in this cooperation, it has played indispensable role in contributing to local development. It not only introduced various resources to assist economic development, but also subtly influenced the passive mindset of local people. Further, its role is constantly changing, conforming to the policy requirement and the characteristics of disciplines in universities. The focus of a future study would be on how to consolidate and expand the previous achievements in poverty alleviation and deepen the assistance mechanism. Hopefully, the situation of passive waiting for assistance can be converted to active cooperation among the different organisations and people involved.

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Chapter One Introduction

1.1 Background

The Chinese government has set a goal to eliminate extreme poverty by 2020, the standard of which is based on the annual income baseline -- 1,196 yuan. This dissertation focuses on the efforts made inside the country, rather than outside in relation to cooperation with other developing countries. The goal to end poverty also appears as the first in the 17 Sustainable Development Goals (SDGs) presented by the United Nations till 2030.

The poverty issue always intertwines with other issues mentioned in SDGs. The Chinese government has made great contribution in safe water, education resources, health care and stable power supply. Moreover, the economy, public services and development sustainability receive equal consideration (Yuheng Li, Su, & Liu, 2016). the poverty alleviation movement, as an essential pathway towards the Centenary Goal to build a moderately prosperous society, has mobilised numerous stakeholders to achieve the goal (Qu, 2017). Recently, the Chinese government has emphasized the intellectual support by Higher Education Institutions (HEIs). This focus on education also symbolises the transformation from the traditional poverty reduction mode of 'blood transfusion' to the sustainable mode of strengthening 'blood making' function in poor region (Eryong & Xiuping, 2018). To support people in impoverished regions, the central government has provided various education resources such as free training courses for needy people, the targeted enrolment programme and scholarships for students from low-income families. However, such acts in the education area are still part of the traditional mode, the passive, one-off provision of resources. The government has recognised the issue and has decided to arouse the institutions' initiative in participating in tpoverty alleviation activities.

In January 2016, representatives from 54 universities gathered in Beijing to discuss how education institutions can help poverty alleviation. More than 100 representatives from Peking University, Tsinghua University, Renmin University of China, Beijing Normal University and others discussed the proposal for colleges and universities to

participate in poverty alleviation (*Gaoxiao Tuopin Gongjian Changyishu*) (Yue Li & Chen, 2016). It called for the mobilisation of more HEIs and other social agents to collaborate in the work to end poverty through education. It proposed to build four platforms for poverty alleviation through education: a training platform, interactive platform, exchange platform and public welfare platform, led by HEIs. Furthermore, it presented four key missions for HEIs in poverty-stricken areas: teacher training to improve local teaching quality; skills training to improve local people's skills and abilities to earn one's living; training for rural grassroots cadres in poverty-stricken areas to help improve management skill; training for rural doctors to help improve medical conditions.

In the meantime, the State Council Leading Group Office of Poverty Alleviation declared the decision to establish the university commission for poverty alleviation which encouraged various universities, colleges and schools to take advantages of the high-quality education resources to contribute to the poverty reduction progress.

While the government has placed great expectations on HEIs, there are still a few drawbacks in practice. Y. Chen (2020) points out that there is a 'supply and demand mismatch' between the education training programmes provided by colleges and universities and the actual needs of poverty-stricken areas. Two problems exist: First, many training programmes are short-term and less systematically planned than is needed. Second, many include training that is too broad and lacks accurate aims.

1.2 Research context

The main research context is in Lvliang, in the west of Shanxi Province. It includes several poverty-stricken counties and is in great needs to get rid of poverty. Among all these counties, two prestigious universities were respectively allocated to Zhongyang (county) and Fangshan (county) to help boost the local development and solve developmental issues.

It is necessary to clarify that both universities have taken all-rounded poverty alleviation measures, which sometimes could be overlapping and cooperative, but the

dissertation discussed two universities with different focuses, on the most typical measure of each university: As the major issue in Zhongyang is about industry transformation and upgrading, Beihang University has formed its own mode of assistance based on innovation and technological support. In contrast, the major issue in Fangshan is about education, so this dissertation mainly discusses the Beijing Institute of Technology's contribution to education development.

According to the unified deployment plan of the central government, since December 2015, Beihang university had taken charge of the poverty alleviation task of Zhongyang (County), Lvliang. The university's perspective is to deeply integrate the advantages of Beihang's technical talents with the advantages of Zhongyang's natural resources and explore the 'Beihang mode' of poverty alleviation, which is consistent with the characteristics of High Education Institution and combines the advantages of universities with the reality of poverty.

Since 2015, Beijing Institute of Technology started its poverty alleviation programme in Fangshan. Fangshan Summer School Programme is an important measure for Beijing Institute of Technology to carry out educational assistance to block the intergenerational transmission of poverty. Since the summer vacation in 2016, it has been held for three consecutive sessions and has become an important platform for youth education in Fangshan. In addition, Liulin (county) in Lvliang, where state-owned enterprises and the Doctoral Students Service Group are assisting is also mentioned to compare how different institutions contributed to the local development.

1.3 Research aims and questions

The objective of this study is to probe into the role played by HEIs in the poverty alleviation progress in Lvliang, Shanxi Province. Given that most previous studies used to vaguely present the poverty alleviation results as economic growth indicators to prove the important influence of HEIs, few studies delved into the process of poverty alleviation, whether their assistance met the local needs and how do HEIs participate in the process. To get a full picture of HEIs involvement, the discussion centres around the overarching research question:

How are prestigious universities involved in the process of poverty alleviation in Lvliang and how do they contribute to local development?

Through interviewing different stakeholders, this dissertation aims to gather information from various practitioners of this policy to find out what benefits and challenges arise in the process. Since HEIs' involvement in poverty alleviation is still new in China, which as noted above, began in 2016, within five years the potential of HEIs in community engagement has not been fully explored. This dissertation did not plan to do a survey to cover an extensive amount of population affected. Rather, it decides to recruit 18 people who have been fully engaged in the programme to study it more closely. To obtain a general idea of how education institutions influence local development and in which ways they differ from other social agents, the dissertation has developed three further research questions:

Research sub-question 1

How are the sustainable development goals embodied in Lvliang's poverty alleviation policies?

The first sub-question relates to the sustainable development goals presented by the United Nations. The government states that the poverty alleviation policy has Chinese characteristics which suit national conditions. Accordingly, this dissertation explores how the SDGs fit the Chinese activity in poverty alleviation and how the Chinese actions differ from the SDGs in being more targeted to local conditions.

Research sub-question 2

How do prestigious universities build connections between large cities and the impoverished region of Lvliang while establishing a long-term cooperation mechanism?

The second sub-question relates to the community engagement of HEIs. Previously, many HEIs have actively promoted such activities, but in most cases the community

engagement activities happen in nearby communities. Since most prestigious universities in China are located in the developed area in the East Region, their sphere of influence is limited. The poverty alleviation programme is different. Through this programme the impoverished regions in Central and West China can benefit.

Research sub-question 3

What are the development problems and how the universities mobilise resources to meet local development needs?

The poverty alleviation policy emphasizes the concept of 'accurate targeting'. Hence the third research sub-question is about how HEIs designed their poverty reduction scheme in Lvliang, how they targeted the existent problems based on local conditions, and how they mobilise the resources they have to address local issues fully utilising their institutional advantages.

1.4 Dissertation outline

This dissertation includes five chapters. The introduction chapter provides background information, and summarises the research aims and research questions. The literature review chapter focuses on the key issues involved and the academic discussion behind it, including education and development, sustainable development goals, and poverty alleviation in China. Chapter three introduces the research methodology of the dissertation. It illustrates how the author gathered the data and analysed it. The fourth chapter presents a summary of the findings from the interviews. Finally, the last chapter draws together the major findings, discusses the limitations, and illustrates new questions to be explored.

Chapter Two Literature Review

2.1 Education and Development

In general, people regarded education as a concept concerned with knowledge teaching and acquisition, leading to a successful career. The ideology of collectivism in China indicates that personal achievement is inevitably attached to national prosperity. A consensus has been reached that education is deemed as an approach to both personal and national development. McCowan (2019) explicitly presents how education affect human beings, create a good person and in turn contributes to the form of a good society. Education brings about literacy and other basic knowledges and skills so that mass of the population can access to essential information. Besides, it enhances people's political engagement and understanding of citizenship which helps build a democratic and liberal society. Also, education offers people equal chances to pursue variant forms of life they value. And among all forms of education, higher education is often seen as an especially important phase because it cultivates a great number of talents and directly services the labour markets.

In essence, the knowledge produced by universities is still the source of development and personal achievement in different kinds. The emphasis on knowledge has never faded away. Especially in the modern society, 'knowledge economy' has become a buzzword which refers to a new economic structure combining well-educated minds and powerful devices in various contexts to create wealth (Brinkley, 2006). A series of new concepts has developed, such as human capital theory, and the triple helix model in high-tech industry. In addition, other contributions of education are also mentioned such as national status, human rights and human development (McCowan, 2019). But researchers caution against narrowing its context to high-tech industry only, as Leadbeater and London (1999) stress its broad application in any sectors as a competitive advantage, from agriculture to biotechnology. There are also calls for better utilization of intangible assets as innovative potentials in the transformation and upgrading of the economy.

From a sociological perspective, the word ‘education’ also evolves into a more inclusive and multi-functional idea. It is proved that education, especially higher education, has great societal impact in the modern world. Stevens, Armstrong, and Arum (2008) interpret the function and purpose of education from a sociological view. Four key words are extracted as sieves, incubators, temples and hubs. Sieves indicates the sorting function such as meritocratic mechanism, social stratification and etc, which might facilitate or hinder the social mobility. Incubator represents certain social networks and cultural capital that varies among individuals from different family background. Temple implies a secular place of modern society where individuals act as citizens with legitimate knowledge. Hub refers to a special site which connects multiple social processes and domains.

Above all, we could infer that the relationship between education and development is highly complex. Historians illustrate that the universities played an essential role in the growth of Europe, contributing to prosperity and also the formation of Eurocentric ideology. In recent years, people have come to take it for granted that education is the driver for development, exerting a prominent impact on the economy. The high expectations of its benefactor government and the public drives the university to adapt strategies to be more responsive. One expected response is through community engagement (Bank, Cloete, & Van Schalkwyk, 2018).

But it worth considering whether there is any substantial and detailed benchmark for the contribution of the university to development. Bengtsson, Barakat, and Muttarak (2018) delve into the interplay between education and developmental goals from five sections, named as five Ps of sustainable development. They are people, planet, prosperity, peace and partnership. This formulation talks about how education enable people’s physical, mental, and socioemotional wellbeing. It illustrates how education promote environmental sustainability and equity. It sheds light on how balanced education might contribute to poverty reduction and economic equality. It also brings forwards ideas of stable societies and equitable networks for sustainable development.

Among all these functions, this dissertation aims to explore sustainable and equitable development patterns. Undue emphasis on the pace and consequentialism of development has caused side effects like inequality. Meanwhile, education gradually

run counter to its initial aim as a common good and in many cases intensify the imbalance between rich and poor. It is worth noting that education is a double-edged sword that can also reproduce inequality at different levels. At the individual level, students from working class background or underdeveloped regions can rarely enter elite institutions and even though they are admitted, few graduates may return to underdeveloped regions. This outflow of talents further intensifies the poverty situation.

2.2 Sustainable development goals

Sustainable development is an evolving concept. McKeown, Hopkins, Rizi, and Chrystalbridge (2002) indicates that it includes three components: environment, society, and economy. These three areas are closely intertwined. The sustainable development goals should follow a paradigm which balances environmental, societal, and economic considerations while improving the quality of life.

In 2015, the United Nations specified the Sustainable Development Goals (SDGs) which contains 17 SDGs, covering topics as education quality, partnership, political participation, strong institutions, reduced inequality, affordable clean energy and so on (UNESCO. Division for Inclusion & Sustainable Development, 2017). It is stressed that to overcome current challenges for development, various stakeholders are expected to do their part, including government, individuals, private sectors, and institutions of all kinds. In fact, there are no clear-cut boundaries among various developmental issues, and usually underdeveloped regions contains intertwining issues including either inequitable education or weak institution power. So, a cooperative relationship among different players is of vital importance.

In this official document, education is underlined as the crucial driving force towards SDG goals since a profound transformation to sustainable development requires individuals equipped with skills, knowledge, and attitude. A concept called ‘Education for Sustainable Development’(ESD) is proposed, justifying the responsibility education institutions should bear for present and future generations. Three aspects yet to be improved are learning content, environment and pedagogy

(Rieckmann, 2017). As for learning content, curriculum should be enriched to include more subjects as poverty, resource shortage and unsustainable consumption. The subjectivity of students is another key issue referring to an active learning process. Informal learning is also mentioned in the manner of problem-oriented, transdisciplinary, and self-directed activities. In this way, students can better understand the meaning of sustainable development and notice the obstacles ahead. In addition, McKeown et al. (2002) identifies four thrusts to begin ESD work, including improving basic education, reorienting existing education, developing public understanding and awareness, and training. To achieve the sustainable development goals, formal and informal education are of equal importance. Practical skills are necessary to enable life-long learning and a sustainable livelihood.

2.3 Community engagement of university

There is an increasing recognition that universities should take the community engagement as the third mission in addition to teaching and research by means of cooperation with local industries and community constituents (Schuetze, 2012). Nevertheless, as universities try to reach out to external communities, there are several barriers to such cooperation, as suggested by Jongbloed, Enders, and Salerno (2008). When discussing the university's power of influence, we presuppose the context is in developed regions, with only prestigious or world-class universities exerting influence on community. Perry and Villamizar-Duarte (2018) regard universities as urban anchor institutions and key elements of contemporary urban political economy and cultural society especially in cities. As for universities themselves, they publicly announced themselves as 'engaged' in a city or a region and treat community engagement as a part of strategic planning (Gaffikin & Perry, 2006). The fact is the higher education resources is not evenly distributed across different regions, especially in developing countries. Since education resources are limited, although policy tends to encourage mass and large-scale development of higher education, the main resources tend to be distributed to a few elite institutions.

2.4 Unbalanced distribution of Higher Education Institutions

In China, this unbalanced distribution is intensified by the different levels of economic development between different provinces. As first-class higher education institutions are almost all public universities taken in charge by Ministry of Education, provincial level educational administrative organs and national ministries like Ministry of Industry and Information Technology, the prospect of a university highly depends on the regional economic strength. The optimal incentive policies favour research intensive, publicly administrated, and first-class universities. As top-ranked universities always situate in large cities, highly developed regions, three layers of inequality appear: regional inequality, the urban-rural divide, and socio-economic diversification and inequality between different minority groups.

If we take a look at the '985' and '211' projects universities in China, the difference of resource distribution at regional level becomes more apparent. The '985' project was first put forward in May 1998, for purpose of building world-class comprehensive universities, and the '211' project was initially raised for building qualified higher education institutions which could meet the emerging requirements of the 21st century. Based on the university list from Ministry of Education of the People Republic of China, 22 universities of the total of 39 in the '985' project are located in the East region. In total, 59 out of 112 of the '211' project universities are situated in the East region. Conversely, in the central region of China, there are only 6 '985' project universities with none in Shanxi, Henan and Jiangxi province. Of the '211' universities, only 17 universities are in the central region, with only one in each of Shanxi, Henan and Jiangxi province. By contrast, Beijing has the highest number of first-class universities, with 8 '985' universities and 23 '211' universities (Z. Song, 2012). The unbalanced distribution of colleges and universities among regions not only has a direct impact on higher education opportunities, but also has a potential impact on regional economic and social development (Shen & Liu, 2008).

Besides the numerical variance of first-class universities between different regions, other factors also show a positive correlation between the economic and educational levels in a region. B. Chen (2016) points out the prominent way that economic development directly acts on in higher education through investment. In his paper, he evaluates the educational expenditures of different provinces. These expenditures include operating expenses and capital construction. Since Beijing was the highest in

higher education expenditure in 2010, it was treated as the standard in comparing different provinces. Shanxi, Henan, Jiangxi and Guangxi provinces were the lowest in their expenditure, among all provinces. The investment rate in Shanxi province was only a quarter of the investment rate in Beijing. In addition, when comparing the proportion of teachers in HEIs with PhDs, Beijing was again the highest nationwide in 2010, with 44.2 per cent of full-time teachers' degree was equal or greater than PhD. The ratio in Shanxi province was only 16 per cent that of Beijing.

2.5 Government's response to the unbalanced distribution of HEIs

Government has noticed the unbalanced development in the central region and in 2004 proposed the 'Rise of Central China Plan', which aimed at providing extra support to accelerate the development of central region. The severe brain drain reinforced the inferior status of the central region and hindered the implementation of the plan. S. Zhang and Ji (2008) mention a report in 2005 which shows that for around 20 higher education institutions in Shanxi province, 1,400 teachers decided to leave the university and among these teachers, 50.6 per cent had a master's or doctoral degree.

Many scholars analyse the causes behind regional unbalance. Firstly, environmental factors as the natural resources, the economic level, legal system, and science education atmosphere are less attractive in the central region than the East (Y. Liu & Hu, 2011). Secondly, the disordered management of talent selection, evaluation, and the incentive mechanism are also problematic (Yan, 2005). Thirdly, the lack of existing policies to remedy the talent shortage, insufficient technical support and start-up companies (W. Song & Yang, 2007).

To solve these problems and in the meantime boost the rise of the central region, a set of new policies have been implemented that involve the participation of first-class universities. This is still a series of top-down acts, through which government on one hand improve the funding investment in local universities and on the other hand calls upon top ranked universities to cooperate with local universities in devoting themselves to the poverty alleviation process. As the domestic influence of first-class

universities is limited to a large extent to the urban areas in the East region, the advanced knowledge system of those universities scarcely benefits people in the underdeveloped regions. If the government did not intervene in this process, the condition of regional unbalance would be maintained and would intensify.

In terms of the urban-rural divide, the educational opportunities for rural students lag far behind that of students who live in cities. According to Y. Zhang (2004), a study conducted in 1998 by World Bank and Ministry of Education shows that the education opportunities for urban area students are 5.8 times those of students from rural areas, nationwide. To specify this difference in various higher education institutions, the data in 2008 shows that the urban-rural difference in the rate of access is high in '985' project universities, private institutions, and independent institutions (Wang, 2011).

With the above considerations in mind, this dissertation has narrowed the focus to the rural area in central China, where a series of preferential social policies are conducted to mitigate the effects of regionally unbalanced development and boost local development.

2.6 Overview of Poverty Alleviation Policy Progress in China

China has made a great contribution towards domestic poverty alleviation. According to statistics from the World Bank, worldwide the number of people who live under the basic poverty line (in 2015, increased from $1.25 to $1.9 per day) changed from 1.8 billion in 1990 to 0.776 billion in 2013 (World Bank, 2017). Poverty is an economic phenomenon, which refers to living conditions of those households whose income does not meet the basic standards of living (Ward, 2016). But as time goes on, the measurement of poverty has moved beyond the simple income indicator alone, and more attention has been paid towards such issues as the shortage of medical care, lack of access to high quality education, or other social exclusion (Bossert, Chakravarty, & D'Ambrosio, 2013).

The importance of issues related to poverty is reiterated by many international organizations as well as the World Bank. For example, as mentioned above, the sustainable development goals proposed by UNESCO also have 'end poverty' at the top of the list. Thereby, to meet the challenges posed by poverty alleviation and constantly changing situation, over the last four decades the Chinese government has implemented a series of strategies.

Poverty alleviation in China have been through four phases since the 1980s. The Chinese government was fully aware that to accomplish this tough task it was impossible to rely entirely on the international aid. The government decided to take initiatives and to utilize their institutional advantages, launching several top-down governments-led programmes. Illustrated by M. Liu, Feng, Wang, and Qiu (2020, p. 217), these four phases are 'relief-type poverty alleviation' from 1978 to 1985, 'development-oriented poverty alleviation' from 1985 to 2006, 'development-oriented social security system' from 2007 to 2012, and 'targeted poverty alleviation' or *jingzhun fupin* from 2013 till now. This progress of policy change reflects China's growing economy and the influence of this on government decisions. The purpose of poverty policy has shifted from a vague idea of improving the national position to more specified and scientific ways to deal with different types of poverty. An ambitious goal was set, which was meant to ensure by 2020, all rural residents living below the poverty line were lifted out of poverty, with absolute poverty being eliminated in poor counties and regions.

The latest programs were launched as part of the targeted poverty alleviation phase . This idea was first presented by President Xi in 2013, after an inspection visit in a central China province, Hunan (Si, 2020). He emphasized the importance of changing the one-size-fits-all approach and ensuring that the new policies would be more realistic, scientific and tailored to local conditions. In the 19th National Congress of the Communist Party of China (2017), President Xi pointed out that to advance the poverty reduction process, we must draw on the joint efforts of society, government and the market, and raise people's morale to lift themselves out of poverty. To achieve these goals, three strategies are put forward of combining poverty aid (*fupin*), education aid (*fuzhi*, in Chinese *zhi* means knowledge) and social mobility aid (*fuzhi*, different from previous one, this indicates solid future prospects or ambition towards a

better life). President Xi also stressed the important role of universities through making a contribution to providing high-quality and equal education chances. Beyond this, a report in 2012 published by the State Council Leading Group Office of Poverty Alleviation and Development included a list of central state organs and government departments responsible for poverty alleviation. In this list, 44 higher education institutions and Ministry of Education have been allocated to underdeveloped regions. In 2016, the 75 HEIs subordinate to the Ministry of Education launched the targeted poverty alleviation policy and each year there are also assessment programmes to evaluate the special contribution of universities (H. Zhang, 2019).

2.7 Reflection

Compared to short-term funding programs, the effect of the university's poverty alleviation programs is underestimated and hard to measure. Most studies of poverty alleviation focus on its longitudinal impact. Achievement is normally understood in quantitative terms as a reduction in the number of people below the basic poverty line. Few researchers notice the quality of those programs, the distinctiveness of university itself and how universities interpret the local conditions so as to provide targeted aid. Moreover, previous studies of poverty alleviation have mainly emphasized general outcomes. This dissertation focuses more on the process and how different stakeholders collaborate and interpret policies. The key emphasis is on the important role of university in the poverty alleviation process at the local level, in the light of a full picture of the policy enactment process from diverse aspects.

Chapter Three: Methodology

Hahn Fox and Jennings (2014, p. 138) highlight three key goals of methodology as 'research clarity, validity and replicability'. In recognition of these goals, this section covers the research design, methodological procedure, and underpinning rationales.

3.1 Research Design

This study aims to cover all players in the policy implementation process, including administrative staff members from Beihang University and Beijing Institute of Technology, local government officials, local residents, and university students who once participated in the summer camp programme. Semi-structured interview were used in this study, in order to obtain a broad understanding of the policy enactment process and what role university played in this process. The author interview 18 people from the four distinct groups named. Each interview was recorded. All interviews were conducted in the one-to-one form, and the interviews took between 30 and 60 minutes. Due to Covid travel restrictions, the researcher conducted all research online through video meeting in WeChat. Interviewees received anonymity. All gave their informed consent to the research.

3.2 Constructionist and interpretivist perspectives

Constructionism emphasises multiple interpretations of experience and how these meanings help maintain power relationships (Burr, 2015). The word 'construct' refers to the process of learning. Through constructing knowledge, learners can individually or socially construct meaning (Hein, 1991). The concept of constructionism is characterised by several assumptions: knowledge is constructed through social interactions (language matters), and people's understanding of the world are shaped by time and space (Rees, Crampton, & Monrouxe, 2020). From a macro-constructionist point of view, the existing societal, professional, and cultural discourses are key (Talja, Tuominen, & Savolainen, 2005).

Aligned with constructionism, the researcher adopts an interpretivist approach, which focuses on understanding people's opinions, and seeking for explanations of their view of society (Bryman, 2004). Qualitative methods are especially appropriate to collecting open and unstructured accounts of experiences (Mann & MacLeod, 2015). This study is exploring a complex social issue and the constructionist and qualitative approaches allow it to thoroughly explore the societal and cultural background to the study. The inclusion of different groups with their complementary experiences contribute to a well-rounded understanding of the whole picture of poverty alleviation work.

3.3 Data Collection Procedure

3.3.1 Semi-Structured Interview

This dissertation used semi-structured interview to establish the different stakeholders' views of the poverty alleviation policy and the university's contribution to local development. Although the study was hindered by the researcher's limited understanding of the policy enactment process, the flexibility of semi-structured interview allows interviewees to change the course of conversation and introduce new ideas that otherwise would have been ignored by the researcher. As Sieber (1973) notes, the semi-structured interview is able to generate new hypotheses while highly structured ones are less likely to do so. Moreover, due to the relatively small number of participants in the interview, it was possible to achieve deep discussions within interviews.

Axinn and Pearce (2006) note that there are risks that less structured interviews are more vulnerable to errors. Participants' characteristics can influence the research outcome. Yet, this dissertation did not plan to reach a representative model as such. This is a new research topic and there are not much data and academic references in the researched domain. The study aimed at delving into the policy enactment process to gather various voices and feedbacks so as to analyse the policy from different perspectives. This can become the basis for a larger and possibly more technically representative study in the topic area.

3.3.2 Sampling and Participants Composition

This study interviewed government officials from diverse fields, including the education bureau, e-commerce platform, justice bureau, environmental protection bureau, and cultural affairs bureau. In relation to the university students, diversity was ensured by recruiting students from different schools and different volunteer teams. The age range of interviewees was from 18 to 70 years.

3.4 Analytical Strategy

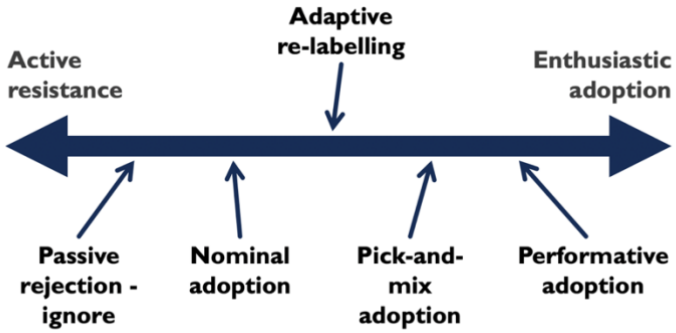
In analysing the relevant government policy, this dissertation used Stephen Balls' theory of policy. He stresses the characteristics of policy as both process and outcome. These criteria framed the discussion in the study. To analyse the local level implementation process, two main threads were drawn, according to 'policy as text' and 'policy as discourse'. For 'policy as text', Ball (1993, p. 11) illustrates that text is the product of compromises, where *ad hocery* and serendipity are common. The distinctiveness of circumstance is stressed in terms of specialized policy formulation and implementation. Therefore, the first question is how different players decoded the original policy paper in the special setting of Lvliang. Many subjective elements affect the decoding process, and Ball (1993) mentions that actors' interpretation might vary in relation to their previous experience, resources and habitual context. In this case practitioners might make totally different choices when facing the same problems.

The second issue is about the key mediators of policy. Local government managers are relied upon to relate policy to context. They are the gatekeepers at the meso level. Besides local government, staff members from Beihang University might also act as mediators, which convey messages to a higher level of governance that contribute to improvement of the policy. At the micro level, government officials also convey messages to the inhabitants. In this process, it is quite important to get a basic understanding about how Beihang University connect with different layers of practitioners and what kind of resources are supplied by each side. Often there can be dissensus, which might result in public confusion, which needs to be discussed in this

dissertation. The final question is about the immanent power relationship. This is a top-down policy, where at first sight, universities seem to be at the top of hierarchy. Yet people might understand their position in different ways.

As for 'policy as discourse', Ball (1993, p. 14) explains the concept of discourse by questioning who can speak and what can be said and thought. The discursive effect of policy as discourse is justified by the subjectivities of all stakeholders. Therefore, in this section, this study tried to collect as many voices as possible in order to exclude the overwhelming effect of 'dominant discourse'. Diverse comments, on the policy outcomes and life changes of individual units, have been encouraged. The eight main acting roles played in the policy enactment process are evaluated, including narrator, entrepreneur, outsider, transactor, enthusiast, translator, critic and receiver (Ball, Maguire, & Braun, 2012). Through matching roles of the interviewees with their comments on the policy it is possible to reach conclusions about the form of enactment, on a scale from active resistance to enthusiastic adoption (see figure 3.1). Eventually, these different forms might lead to different policy outcomes.

Figure 3.1. Different responses to policy



(Ball, 1993)

3.5 Data Analysis

3.5.1 Thematic Analysis

Codes classify characteristics of either semantic or latent data that interest the analyst (Boyatzis, 1998, p. 63) and while the researcher organised the raw data into meaningful groups, it was also a process of analysis. Braun and Clarke (2006) indicate that coding should depend on whether the themes are data-driven or theory-driven in the thematic analysis. In this study, there is no pre-determined theoretical framework, so the researcher naturally assumed that themes would emerge from the process of coding and first-hand data.

3.5.2 The Analysis Framework

Overall, the analysis section includes three parts. The first part talks about policy background at the local level, the summer school programme of Beijing Institute of Technology and the pre-established poverty-alleviation plan of Beihang University. Due to the plurality of contexts, there might be various forms of implementation and interpretation of policies. A newly posted policy may generate totally different meanings to the performers compared to a mature one which has been conducted for decades with accumulated experiences and reflections, with its core concepts changing as time goes by. This part of the analysis means to find out how external factors and the early-stage paradigm influence the policy direction.

The second section about the policy enactment process delves into how the cooperation among various sides leads to the accomplishment of the initial prospect. An important purpose of interview with university staff members was to gain an overview of how universities understand and interpret the policy to meet local needs in practice, and in the meantime, how they engage in the local community. In addition, the questions at issue are about what innovative and advanced moves are taken by prestigious universities. The power relationship between government, university and industry is also discussed, as distinct from the triple helix model which applies in advanced region. The ‘policy as text’ analytical framework is mainly applied in this section.

Finally, in the final section, the study reaches the policy assessment point where the concern is ‘policy as discourse’. Various outcomes in economic and cultural forms are

discussed. This section combines the reflections of different stakeholders on the policy achievement. The criteria for policy assessment and data gathered from official website are also taken into consideration. Certain defects of this policy are brought forward, and corresponding suggestions are provided. In conclusion, we talk about future prospects and ways to maintain sustainable development after the policy expires.

3.6 Ethical Concerns

Ethical dilemmas are common in qualitative studies. Fletcher (1992) explains the term dilemma as a situation where a person has to decide among several non-ideal options, and ethics as a reflection of values and character traits guiding researchers' behaviour while doing research. Since this dissertation used interviews to get information, the interviewer had to take into account people's socio-economic background, their psycho-social understanding of the current policy, and the interpersonal relationships in and with different groups (Rosenblatt, 1995). It is essential to reflect on ethical issues and abide by the principle of 'do no harm'. Sabar and Sabar Ben-Yehoshua (2017) points out that in qualitative research, it should be noted that even though the researcher trieds to avoid manipulations or physical damage, unexpected psychological harm can arise. To refrain from potential risks, informed consent and confidentiality were negotiated before the research was conducted. During the research, interviewees had right to withdrawal at any time or stop recording if they felt uncomfortable.

This study complied with the founding principles of research ethics and during the data collection process, it followed the General Data Protection Regulation (GDPR). All special data regarding sensitive topics and personal information were saved in an encrypted hard drive and were not shared with others. All consent processes were made clear to the participants through clear explanation. The participants were given adequate time to consider the consent form and propose any questions. After approval, was obtained, the interview question was sent to participants before the interview, so that they could evaluate those questions and decide which questions to answer or not. Their feedback and comments on the questions were welcomed. The researcher

adjusted the questions in the course of this research. The research was reviewed by the Central University Research Ethics Committee (CUREC) at the University of Oxford Department of Education. The attached files for ethical approval included the participant information sheet, the consent form, and the draft interview questions.

Chapter Four Analysis and Discussion

This section includes three sections, university students' perspectives, government officials' perspectives and university staff members' perspectives. In each section, the researcher includes several parts obtained from coding and thematic analysis of the transcript. Firstly, the underlying philosophical, historical, cultural, economic, and political considerations of the policy are introduced. The initial aims of the poverty alleviation policy are discussed, and the distinctiveness of universities' engagement is discussed in terms of the kind of resources they provided to achieve the initial aims. Furthermore, the cooperation mode and prospects in Rural Revitalisation stage are presented.

4.1 University Students' Perspectives

To discuss the universities' involvement in poverty alleviation, we must first examine the summer camp programme organised by Beijing Institute of Technology, which is an essential activity to connect prestigious university students and rural children with poor education resources. Due to the Covid situation, the researcher was unable to directly contact the rural student children. Instead, the writer interviewed five volunteer university student teachers. Each interview lasted around one hour. Hopefully, by analysing these interviewees' perspectives, this study is able to investigate the role played by university students (volunteer teachers) in education aid.

4.1.1 Background to the summer camp programme

In the developing strategies to overcome poverty, there is always a concern about the intergenerational transmission of poverty, which refers to how the socioeconomic condition of a family could be transmitted from parents to children (de Vuijst, van Ham, & Kleinhans, 2017). Based on this concern, some researchers have studied the relationship between social mobility and economic inequality in urban China. The result shows that intergenerational transmission of education might intensify

economic inequality and could potentially be a barrier to equal access to education and people's future attainment (Magnani & Zhu, 2015). Not just parental impact, the residential environment has also been highlighted regarding its life-long impact on an individual's development, particularly in deprived neighbourhood (Hedman, Manley, Van Ham, & Östh, 2015). Their exploration of the barriers to the development of children living in poor rural area identifies many influential factors. Brown and Park (2002) discuss the relationship between education and poverty in rural China, and they find out that the effect of wealth improves learning while credit constraints restrict a family's education investments. In developing countries, education attainments, gender gaps and poverty are inseparably interconnected (Filmer, 2000). Many studies show that on one hand poorly educated parents might not be able to educate their children about their homework; on the other hand, they might value education less which result in irrational educational decisions (Brown & Park, 2002). Besides, the education quality in deprived region is incomparable to the wealthy community in big cities, and thus the returns to education are lowered.

Other researchers mention the moderating effect of attaining higher education over time in modifying the intergenerational patterns of poverty (de Vuijst et al., 2017). However, without good quality proof of basic education, it is almost impossible for these children to get access to higher level of education, which undermines their prospects of accumulating the human capital needed to get a decent job.

> *While doing the survey, we also paid attention to the changes of local condition. We noticed that the progress was very slow, and people was the core problem in this process. Some residents positively reacted to the appeal and joined the poverty alleviation programme, working in the local orchard or farm. By contrast, there were some residents who resisted working and tried to swindle the poverty alleviation fund. So, as the village secretary told us, poverty alleviation requires a change of attitude and support of education (fupin and fuzhi in Chinese). This is important for both children and adults.* (Daniel, male, volunteer teacher in 2016 and 2017, Fangshan)

4.1.2 Local condition and culture

These concerns about children's environment, education quality and parental influence are also reflected in the interview data. As warm-up questions, the interviewee asked about the student volunteers' impression of the local condition and culture. Their feedback was consistent. It can be thought of as falling into three parts.

First, volunteers shared their view of children's living conditions and the rural culture. More than one student emphasized that people living in the neighbourhood were very conservative and closed-minded, and this was embodied in their education ideas. Residents in the village normally did not encourage the young generation to pursue higher education and as a result, many children did not understand the importance of education and some even though they were unnecessarily fettered by education. One volunteer told the interviewee that he tried to discuss the concept of lifelong learning with a kid, but he was quite doubtful and resentful towards tertiary education. Children scarcely considered their long-term plan for life and were easily satisfied by their current situation. This might result from having no proper guidance for a long time. After all, the most common trajectory for a person was to finish 9-year complementary education and immediately move into earning one's living.

Regarding information channels, the network and electric supply were established, though not very stable, and many parents had smartphones. However, volunteers indicated that the widespread network system had brought about more negative influence by spreading meaningless short videos or conveying unhealthy lifestyles. In face of this mixture of information, children or teenagers usually could not distinguish the good from the bad. Another volunteer told the interviewee that the negative impact was more serious for kids from richer family as they always carried mobile phones, which highly distracted them from study and made it hard for them to communicate.

4.1.3 Parental impact and family education

In terms of parental impact and family education, many interviewees spoke of the issue of left-behind children in rural China. This issue is a side effect of China's rapid

economic growth and urban development, due to which, better paid jobs in big cities have attracted many migrating rural workers (Sun et al., 2015). However, rural labours often ended up in physically demanding jobs and could hardly afford the cost of living in urban areas. This has resulted in a separation between urban migrant workers and their children. These left-behind children usually live with a single parent or their relatives such as grandparents in rural hometowns, while their parents are working in the city (Duan & Zhou, 2005). Given this social background, many researchers have shown great concerns about the development risks of these children. These concerns revolve around educational, psychological, and social consequences: parental absence from children's education, the neglect of children's psychological problems, insufficient supervision, and an undermined parent-children bond (Ding & Bao, 2014). Though the household income might increase and can be converted to children's education input, in the long run, that could hardly offset the negative effect of parental absence or contribute to expected education outcomes (Lu, 2012).

Since all interviewees had conducted preparatory survey and home visits, the interviewer gathered much information about the family education mode and parents' attitude towards children's study. First, in Qiaogou Village, many of the students in summer camp were left-behind children, aged from 6 to 12 years old, and most children lived with their grandparents or one parent. As they grew older, some migrant parents prepared to take children to cities to get better education, but many parents told volunteers they did not expect great from their children. Second, interviewees also talked about certain noticeable parental influences on children. There were various elective courses for children to choose, including English, math, art, flight vehicle design and so on. Some parents tended to manipulate their children's choice. Parents often preferred English and math courses for practical reason, as they regarded the summer camp as a cram school. This caused rebellious attitude of children and many volunteers believed this was not beneficial to children's long-term development or interest cultivation. Some volunteers pointed out other issues. For example, as parents were busy working with no time to discipline kids, they passed the full responsibility of supervision on to the volunteer teachers.

4.1.4 Rural children performance and attitude

Second, volunteers shared how they perceived local children. In relation to the children's class performance, volunteer teachers found that many did not actively participate in class activities and some even did not know how to write their own name. The uneven level of students' competency made the teaching even more difficult. In relation to the children's attitudes towards this programme, interviewees told us that many children showed resistance to studying in summer vacation and were unconscious of the role volunteers played, and whether they were different from schoolteachers. Likewise, the children had no ideas about what a university meant for them. Nevertheless, after class, they did show curiosity and desire to communicate. During this more casual time, volunteers tried to make friends with them and had chats about their personal interests. Most children were satisfied with the present life and could vaguely express their aspiration, which was to follow their parents' route, to be a migrant worker in the urban regions. But there were very few students who had deeper communication with volunteers. There was one girl who performed very well in class. The volunteers found out her parents were in very bad health conditions, one mentally, another physically. Due to these factors, she lacked proper supervision from parents, and longed for communication with volunteers. In this case, the volunteers kept in touch with her to provide educational support and psychological support. Though thanks to the poverty alleviation policy, their family had received subsistence allowances, their ignorance of children's education needs was still a serious issue and might result in great developmental risks.

> *Local children did not have the idea of changing their destiny by education, and many just anticipated to be migrant labours or went to vocational schools. They did not understand how education could help alleviate poverty and did not value study as well. There is a Chinese saying which can perfectly describe their attitude, poguanzi poshuai, which means when you see something is hopeless and then you will do it recklessly.* (Alma, female, volunteer teacher in 2017, Fangshan)

Apart from family deficiencies in relation to education, some volunteers noticed other clues showing the defects of local education. First of all, the insufficient number of

teachers led to high pressure on single teachers, who was usually old and in charge of many classes. Second, equipment maintenance was unsatisfactory. Art, music, and PE equipment were left unused and high-tech equipment like projectors were either underutilised or broken. Thirdly, since good middle schools in Lvliang were traditional, rigid, and grade-oriented, children from the rural area could hardly meet the high requirements, which could be quite discouraging.

4.1.5 HEIs' response and criteria for the programme

In the face of such a situation, the Chinese government adheres to the idea that poverty alleviation requires both attitude change and educational support. To respond to the national call, higher education institutions devote themselves to education aid for rural students. One general goal is to subtly change children's passive mindset through the companionship of outstanding university students. Universities expect university students to provide diversified education resources based on their specialty, conduct one to one communication to change their view of the outside world and guide children to establish long-term goals.

Some researchers of poverty alleviation programmes have proposed that in such programmes, university students should fulfil certain requirements.

a. As for preliminary work, volunteers should conduct sufficient research of the local conditions. University should establish scientific selection systems of volunteer students and normalise training content and process.

b. During the programme, the course content should be diverse but practical. The examination and supervision system for university students should be improved, based on teaching performance and children's feedback. Meanwhile, the basic life quality of university students should be guaranteed.

c. In the ending stage of the programme, the connection with local principal should be maintained. The achievement should be converted to a sound electronic record of rural children. To attain long-lasting effect on children and provide prompt support, subsequent report and tracking are indispensable. Moreover, the feedback system should be established and the cooperation

> between different teams should be enhanced. Finally, to inspire more university students to join and arouse their civic awareness, the publicity surrounding poverty alleviation and education also matters. All in all, the consistency and sustainability of education should be valued.
>
> (Lihong Gong & Xiaomang Chen, 2014)

The next part of the chapter investigates the summer camp programme from the following perspectives: students' motives to join this programme, preparation work and activities in the programme, university students' self-assessment and their education ideas, experience and personal feeling of university students, merits and defects of this programme, and finally, essential conditions to be successful.

4.1.6 The university students' motives

The interviewer asked warm-up questions as why universities students decided to join the summer school programmes in the underdeveloped regions.

To respond to the national call of poverty alleviation, the university asked each school to dispatch a group of students to participate in the poverty reduction acts. This was a compulsory request. The summer school programme mentioned here was a form of community engagement. Community engagement or social practice was a compulsory course for almost all undergraduates in public universities. Students were told they could fulfil that course requirement by joining these programmes. In addition, some students told the interviewer that they were told such programme could enrich their Curriculum Vitae and might benefit their future work applications. These were extrinsic reasons for participation.

Nevertheless, others were more driven by internal causes. Some expressed their affection for kids, and others were inspired by the sense of social responsibility to change the children's fate through their contribution. Many stated that they valued the experience of being in the actual situation rather than making donations at home. One student told the interviewee that only by this way could they fully understand the restrictions that the children encountered. Moreover, the university students also

found it a good opportunity to know the true situation of Chinese countryside as for most of them, their only chance to know the poverty situation was from TV news.

> *When I decided to be the team leader in Fangshan in the summer vacation during my sophomore year, my motives were to make up for regrets left in first year and to make some real contribution. This did not mean I had to necessarily change the situation, but I wanted leave happy memories for my team member. By the way, I also expected to improve my own practical and leadership ability.* (Daniel, male, volunteer teacher in 2016 and 2017, Fangshan)

4.1.7 Preparation work and activities in the programme

In the next stage of the interviews, the interviewer learned about the activity process in the Fangshan Summer Camp. Since the programme in Fangshan was in charge of different schools which belonged to the university, as supplementary, we interviewed a student who represented a large university organization which specialised in poverty alleviation activities and had reached remarkable achievements. Since they had received many university-level and city-level awards, it can be considered a successful model.

The preparation works included the preparatory training course for volunteers which included after-class quizzes, lectures, and weekly seminar for team building and for course preparation. The most advanced student-led organisation even obtained support from an NGO.

> *The NGO provided training for us. During the Qingming holiday, team leaders participated in three days training, and they were responsible for presenting all ideas they had learned to team members later. After training, we had one seminar each week to discuss some innovative ideas and be familiar with each other. Then we tested our course setting and time length in the form of presentation before the whole team. Then the material supply came*

from NGO support or donations. (Laura, female, volunteer in 2016 and 2017, Anhui Province)

In Fangshan Summer Camp, many participants did a survey before they started teaching. In this process, they learned about education support policy, parents' attitude towards education, the number of children's siblings, and other aspects of local conditions. They told the interviewee how essential the survey was in helping students adapt to the real situation. However, many students were not serious about this activity. Compared to the survey, other forms of preparation mentioned above were more superficial and less practical from students' point of view. Many complained that the preparation was too hasty. The degree of readiness varied between different teams, depending on the management and leader of the team. Another finding was that the more experience they had, the better they were prepared.

I do think we could do better than this. Because of not knowing the local condition, some of our preparation did not match the real needs. For example, we did not know the students' education level, so the course content had to change a lot. Some university students were very vulnerable in face of the situation as well due to the unexpected challenges. (Alma, female, volunteer in 2017, Fangshan, F team)

Our team had great cohesiveness, this was because we had participated in this programme more than once, we fully prepared for all challenges this time. We went through complex preparation procedures, and before we went to Fangshan, we had finished all course arrangement which made the real teaching experience quite smooth. Similarly, both volunteers and local children had a very fulfilling experience. (Miranda, female, volunteer in 2017, 2019, and 2020, Fangshan, A team)

Then the interviewer asked about students' teaching experience in the summer camp. Interviewees told the interviewer the summer camp lasted from two weeks to a month, and the age range of local students was from 6 to 12 years old. University students provided different courses for the local students based on their own majors and each

team included a 10-15 people group organised by various schools. For example, students from school of foreign languages offered English teaching or other foreign languages while students from school of arts and design taught students basic drawing. However, the students complained about the miscellaneous class composition as students from different grades were gathered in one class. This made the before class preparation more difficult and the effect of courses became hard to evaluate. Sometimes, volunteers could not pay attention to every kid.

By contrast, there was also positive feedback from different programmes and teams. The researcher found that the difference resulted from different perception of the role of volunteer. Thus, in next section, this dissertation talks about students' self-assessment and the strategy they took in the summer camp.

4.1.8 University students' self-assessment and education ideas

In terms of the terms used to describe the role played by the university students, the interviewer collected various answers, such as a bystander, a companion, a friend, an elder sibling, or a teacher. All volunteers expressed that compared to other titles, they were less willing to be called as a teacher, though they admitted that they should be evaluated based on the criteria for teachers.

> *As our original intention was to teach student knowledge and broaden their horizon, volunteers must be responsible to local children. We had to be very strict with ourselves, abiding by the disciplines being a teacher. Nevertheless, even though all of us were close friends and playmates to local children, I would not say we were qualified teachers, and many students were not right for this role.* (Miranda, female, volunteer in 2017, 2019, and 2020, Fangshan)

> *We mainly acted as companions, and we wanted them to call us sister or brother. I personally disliked the title teacher because we were just some young university students, and we were not proficient in education practice at all. We only hoped we could imperceptibly influence their behavior and way of thinking. So, the way we evaluated the effect of the summer camp was based*

on whether children enjoyed various activities and built relationship with us. (Laura, female, volunteer in 2016 and 2017, Anhui Province)

In addition, the interviewer asked how their roles as university students influenced their performance in poverty alleviation. When comparing themselves with social workers, the interviewees indicated that though university students can be less professional in teaching and taking care of local students, the identity of university students brought about other benefits. First, since most volunteers still saw themselves as students, the common role made the local school children closer to them than those children would be to social workers. Secondly, the university students valued mutual learning, which meant they would like to learn something from the rural region rather than only help local children. This innate recognition of equality helped shorten the distance between the teacher and the students. Thirdly, because in the rural region, almost no children had close relatives who had a university degree, children had no idea of university, let alone any intention to receiving higher education. Thereby, the interviewees told the interviewer they were glad to appear in the local students' life and showed in person what was a university and how did university cultivate students' ability and benefited one's future development. Fourth, various courses designed by different schools inspired children's creativity and presented diverse choices for children to pick. Furthermore, volunteers also shared their understanding of education.

In the summer camp, the most valuable staff we brought about was learning method and way of thinking. To be honest, local teachers could be far better than us in teaching. But both volunteers and students valued the friendship, sharing our sorrows and happiness. Therefore, sometimes we felt helpless knowing their dilemma but could not help. (Sean, male, volunteer in 2017, 2020, and 2021, Fangshan)

The difference between a good school and a bad one is about teaching method and learning method, whether students learn something flexibly by themselves. Rather than rigid teaching, a good teacher knows how to guide students to pursue their dream. This is what we were doing. Meanwhile, for the primary stage, we had to ensure they had a solid foundation. Therefore, I

recommended for the combination of two forms. (Daniel, male, volunteer teacher in 2016 and 2017, Fangshan)

The university students also commented on the incentives of local students to join the summer school. Most of them did not understand why they should study. Their parents sent them to summer school because they, the parents, had to work during summer vacation and had no time to take care of the children by day. Many parents just regarded the summer school as a free nursery which could in the meantime provide their children with basic life skills and for most of the children, summer school was just a place where they could play and spend time with friends.

4.1.9 Experience and personal feeling of university students

Among the university students the most frequently mentioned feeling was helplessness (*luocha* in Chinese) as this might be the first-time volunteers found how insignificant they were when confronting the huge economic gap. Nonetheless, the attitude changed as time went on. Though each team only had about ten people and volunteers could not change children's life as much as they expected, they did feel subtle changes in the students. The longer they got along with local children, the deeper trust was built between them. Gradually, university students immersed in children's life, not only spending spare time with them, but also being welcomed to children's family. Moreover, the relationship between team members became profound and some even planned to come back next year together.

Though many children did not like study, we really appreciated knowing them and we all had the sense of accomplishment in the end. I still remember the day when we left, there were many children running after us bus calling our name. After we came back, they still sent us messages asking when we were going to come back. (Alma, female, volunteer teacher in 2017, Fangshan)

After living in the village for a while, my soul was purified, and the trip helped me relax and release pressure. I love the feeling away from the noise of cities. (Sean, male, volunteer in 2017, 2020, and 2021, Fangshan)

However, students also complained about the bad influence of mobile phone, and some volunteers said that though the economic development was noticeable, the education was lagged. Volunteers came to Fangshan after 2018 were disappointed by how local children were addicted to the network, an issue that was inseparable from the educational issue of left-behind children problem. This also indicates the difficulty of education aid which requires arduous and long-term effort.

> *Sometimes we were shocked by rude words said by the rural children, but in fact many did not know the meaning, but they just felt cool to say them. They could not distinguish between good and bad. But the influence of mobile phone and social network was irreversible. This was heartbreaking.* (Laura, female, volunteer in 2016 and 2017, Anhui Province)

4.1.10 Merits and defects of this programme

Interviewees indicated many advantages of joining this programme: 1) Compared to the community engagement projects, the poverty alleviation programmes were usually organised by the university and supported by the local government, which meant students could get more resources and deep participation experience than self-organised projects. 2) Universities always had formal preparatory trainings and systematic guidance compared to self-organised activities. 3) Students often felt a sense of social responsibility by engaging in under-developed community and this experience broadened their horizon.

> *Something good was about their life being more abundant, and they also had chances to go to Beijing. This was a mutual process. Rural children came to university to experience campus life, sponsored by both local government and university*. (Daniel, male, volunteer teacher in 2016 and 2017, Fangshan)

Nevertheless, the students also had complaints about these programmes: 1) The condition of these summer programmes were much worse than the university students had expected: terrible accommodation condition, no air conditioner, awful sanitary condition, food, risk of natural hazards. 2) The budget varied between different

schools, which highly influenced the potential effects of the programmes, and therefore the students' feedback. For example, some students blamed their school for the limited budget and for not fulfilling its commitments to subsidize each participant, which meant students had to pay for the whole trip themselves. One student said that given the bad local conditions, and the voluntary programme at their own expense, the students group was demoralised. 3) The preparation work also varied. For some volunteers training courses were not satisfying. Some students pointed out that they were not well-prepared for all conditions they might have encountered. They not only stressed the vulnerability of students in rural area but also the vulnerability of themselves, which was overlooked by the university. 4) Sometimes, the recruitment of volunteers was not rigorous enough, which resulted in irresponsible team members. That situation was worse if there was no powerful team leader. 5) Some students pointed out that they had very little communication with the local school and local teachers, and therefore they worried about whether the previous knowledge children had learned could transit to what they taught. 6) Many complained that the experience was wasted because it was not converted and summarised as academic work. Though many teams had tutors, they were not helpful in the final stage of the programme.

> *In terms of writing materials, if social science teachers were involved, and two instructors were assigned at the same time, one counselor followed the group and the other summarized the materials, the results would be of greater significance. However, the fact was that our work was not academic enough, so the results could not guide the following practice or turn to something more meaningful.* (Miranda, female, volunteer in 2017, 2019, and 2020, Fangshan)

7) Some volunteers doubted whether this programme could truly help local students since the come-and-go state of volunteer group made many local children feel like they were abandoned.

> *For rural children, there was more harm than good. Students would not like a frequently changed teaching group. It looked like these university students just came here to experience a new life or chat with new people. Some children were fragile and sensitive, they might have such thoughts.* (Daniel, male, volunteer teacher in 2016 and 2017, Fangshan)

4.2 Government Officials' Perspectives

In this section, this study analyses the interview transcript of government officials in order to answer the research question about what role was played by Beihang University in poverty alleviation practice. This section of the dissertation includes six parts, including projects supported by the university, the cooperation mode, changes before and after university came, comments on the university's aid and the poverty alleviation work, evaluation of policy enactment, and objectives in the next stage.

4.2.1 Projects supported by the university

Some major projects were supported by Beihang university. The first was the business incubator which aimed at providing more employment positions and stimulate entrepreneurship and innovation. It contained small (micro) local enterprises and introduced middle-sized enterprises, with site layout and facility support provided by the local government. These jobs were mainly retained for people living under basic poverty line, who could earn at least 700 to 800 RMB each month (about 78 pounds to 90 pounds), equal to more than 10,000 RMB each year. Since the business incubator was near to the migration relocation site, residents could work in the nearby neighbourhood. There were manufacturing companies in the incubator and the orders went directly to residents' or farmers' home. This manufacturing work was handy, low-tech, and could greatly engage nearby residents as there were orders all around the year.

> *In terms of industrial development, Beihang supported the livestock husbandry development (sheep raising) and the business incubator of small and micro enterprises. There was one popular product named Beihang 'duoduo', which means coil in dialect. It was a part of electric relay and required a lot of manual work, so its mass production created many jobs for the women and old people left behind in the villages. They could process at home or go to the nearby workshop doing coil winding, and finally increase the income.* (Mr. Lee, government official)

E-commerce was an independent section in the business incubator, the development of which requested sound supporting facilities, at least network and logistics. The original intention of its development was to increase people's income, ensure people learn new skills, change their traditional consumption ideas, and bring convenience to daily life. Owing to the national call for promoting the ecommerce in rural region in 2015, Zhongyang as an impoverished county at that time asked for the central government subsidy of 20 million RMB. Together with the local investment of 2,000,000 RMB, this integrated projected had run smoothly. This systematic project covered two stages, towns and villages, developed based on the cooperative system, including various departments as agriculture, forestry, logistics supply and marketing. Regarding the management team, the secretary of the county and the head of the county led the group. The vice head of the county which was taken up by a Beihang university staff specialised in the ecommerce section. With the help and coordination by the local government, the university brought about experts in ecommerce to do research about the regional advantages and disadvantages in developing the industry, and the status quo of the agriculture industry. In the pandemic, the ecommerce and the online shopping mode developed further. In addition to the ecommerce section, there were also other network-related businesses.

> *Last year, under the influence of the pandemic, the online channel was very popular. The public possibly did not know how to use it before, but they took the initiative to contact the staff and participate in the ecommerce training. More and more farmers were learning to buy things online and can receive things at their doorstep. The delivery service could go into the administrative village or into households, not village in geographical concept. Relying on the station, every village has an e-commerce station, with township level called station, village-level called point, and county-level called centre.* (Mr. Ye, government official)

Moreover, the incubator centre also provided training resources and technology aid for residents. Since now there were already many people who knew the relevant skills and how to set up the online shop, the ecommerce centre provided Q&A support and sometimes P.S. teaching or help. This was run by a group of skilled staffs. This

service was for free, and the primary idea of ecommerce centre was to serve the people. The welfare policy also covered rent, estate management fees, charge of water and electricity, network fees and other basic public services. The centre also provided basic furniture.

> *The ecommerce training targeted at 10 per cent of the poor population. The centre trained 3,000 people a year in e-commerce. Regarding facility and policy support, the poor could enter the e-commerce service centre free of charge. There were working stations, small rooms, and small enterprises. Computers have been provided in the e-commerce service centre in the entrepreneurship development area. We hoped to provide chances for poor people to start up business as well. So, all for free. Pens and notebooks are free, photography is free, studios and the venue are free.* (Mr. Ye, government official)

According to the interviewees, the university staff also helped formulate the local policy at the village level. In the county of Zhongyang, the university staff also served as the village secretary in Yangpo village. The staff lived with rural residents, publicised the poverty alleviation policy and encouraged them to join new projects. The great job done by the staff was reported by authoritative official media such as *People's Daily.*

> *Beihang university appointed staff to be stationed in the village for a long time as the first secretary (diyi shuji). The person was responsible for the party building work, strengthening the rural branch, playing the leading role of the rural leader. The staff in office had great qualities and professionalism. In 6 years, there were 3 secretaries, each serving 2 years. Yangpo village went through the test of various policy implementations, including 53 policies raised by the central government, the province, the cities. These policies revolved about migration relocation, agriculture and husbandry development, business incubator project, manufactory development (Beihang duoduo), and income increase of left-behind women and the aged.* (Mr. Lee, government official)

Interviewees also presented appreciation for the university's efforts in the offline marketing, especially in establishing the local brand and preservation of the local cultural heritage. One well-known local brand was the Lvliang nursing platform which cultivated great nursing workers, established by the local government. Beihang university was responsible for the publicity and marketing for this platform. In practice, the university acted as an intermediary agent by setting up a service station in Beijing to gather needs from the neighbouring community. This station was a two-way platform, with one side selecting care workers, the other side providing demand information. With this platform people in Beijing could directly choose the care worker they wanted, so the information asymmetry problem could be solved. Another contribution of Beihang university was about the preservation of local cultural heritage. On May 20, 2006, Zhongyang paper cutting was approved by The State Council to be listed in the first batch of national intangible cultural heritage list. Beihang university took a very innovative way to renew this heritage, by the way of adding local elements in the university enrolment guide and admission gift bag. In the undergraduate admission gift bag, student received a paper cutting gift which was handmade by local people, depicting a carved aircraft.

> *We had great training chances and with the help of Beihang university, local care workers from Wujiazhuang village could get a job in Beijing and earned 8,000 to 9,000 RMB each month. Generally speaking, this project has achieved notable results and now the residents have a strong willingness to go out. But I still feel it is a tough process to motivate more people living under poverty line to learn skills and find jobs.* (Mr. Sun, government official)

There were other supports provided by the university as well, such as medical support and R&D support to Shanxi Zhongyang Steel Ltd. Beihang University contacted well-known hospitals in Beijing to provide support to special poverty-stricken families who had rare illnesses but could not afford to pay for the medical expenses. With the combination of the social insurance fund of these families and the financial support from university foundation, all sectors were trying their best to prevent poverty caused by disease.

> *The investment in Zhongyang has driven the economic development. Because of its high science and technology essence, Beihang university helped change*

the traditional single resource-based economy. Hopefully, it could drive the development of county economy and improve people's living quality. (Mr. Zhang, government official)

4.2.2 Cooperation mode

When the interviewer asked about the cooperation mode between Beihang university and the local government, most government officials pointed out that the cooperation was government dominated. In this process, Beihang university played a supporting role, providing needed resources and suggestions to local development. The local government was responsible for taking care of the university staffs' living necessities and the organization department of local government was the intermediary between other departments and the university staff. The government also arranged works to university staff in regard to what tasks and villages they were targeted at. Usually, if the university put forward innovative ideas, the government officials would probe into their feasibility and mobilise all possible resources to support university's work.

In relation to the Beihang university staff, they did their best to fulfil their duty and implemented policies as mentioned in relevant projects. As prestigious universities had this special responsibility for poverty alleviation, as designated by the Central Government, besides providing various supporting resources, the university was of vital importance in being the bridge between local government, central government, and larger market.

Beihang university started with delegating university representatives. Generally, one university staff took up a position of temporary vice head of the county who directly involved in the administration work, financing, and policy implementation. The person contacted the university to make use of the talent resource, technology support, and funding support. Besides, he also coordinated with the province-level about major poverty alleviation projects and the realisation of innovative ideas. (Mr. Lee, government official)

In addition to discussing the above-mentioned contributions, some government officials also spoke of their limited influence. For example, the publicity of local cultural heritage and marketing of local products were still restricted by the range of university.

> *I remember in the village secretary's work report, he stated that Beihang university was a small link for poverty alleviation in Zhongyang. Yangpo (village) as an example site was the centre guiding development, boosting development, and assisting employment in surrounding areas. However, we must admit that a village cannot promote the development of the whole county.* (Mr. Liu, government official)

In summary, the cooperation was profound but top down, driven by the policy. Many interviewees presented their approval of the current poverty alleviation policy. They attributed the positive cooperation to the requirements of the policy. This cooperation was not initiated by the local government, and without the central policy there would never be such a long-term cooperation between two seemingly unconnected groups. But since the policy was not immutable, local officials indicated that there were uncertain prospects for future cooperation, and they emphasized their hopes for a long-term mechanism for university-locality-enterprise cooperation.

4.2.3 Changes before and after university came

The interviews with government officials first discussed the previous poverty alleviation policy and its effects before the university joined. Government officials indicated that the core concept had not changed much, but in the past most works were driven by endogenous power and if there was any outside support, it came from financial aid of the central government. The projects were more unitary and slow-paced, mainly focusing on reducing the number of low-income families or individuals. Before 2015, the local construction and infrastructure building were behind. This was the reason why the resident relocation programme started before the university came, as the living condition in some village could not reach the basic sanitary requirement. The public service system was unsound at that time as well.

> *Before 2015, the local government already started developing new industries. For example, it was encouraged to grow ecological forest and walnut tree. As for the walnut tree management, previously the county might do it dispersedly, now its management belonged to the cooperative professional company, with a high degree of systematism.* (Mr. Sun, government official)

This indicated that the poverty alleviation goals could not be achieved overnight. Instead, it is a step-by-step process. Without victory in one stage there can be no breakthrough in the second stage. This dissertation is focused on achievements and changes in the second stage, which is with the involvement of Beihang university.

Zhongyang county built a moderately prosperous society in all respects by 2020. The permanent urban population reached 90,000 and rural residents had stable water and electricity supply. Poverty caused by diseases, lack of labour, and natural and man-made disasters decreased dramatically, with the help of a sound interactive mechanism between employment and social security. Various new jobs were created along with the development of new industries. The minimum income was guaranteed. The county changed its old ideas about development. Interviewees highlighted the scientific and technological advances, and they ascribed the imperceptible influence on the connection between the higher education institution and the small county. After the university came, local people changed their mind from passively waiting for external material support to learning skills and making their own living. But the formation of endogenous power still had a long way to go.

> *The connection between university and poor areas brought a lot of help. First, the cooperation brought new knowledge and skills. As we now pursue sustainable development mode, the high-tech industry has driven the county's economic development and increased people's living condition. Beihang university also transferred information, entrepreneurship, and innovation, especially the use of leading technology to cultivate local development.* (Mr. Zhang, government official)

To pursue the sustainable development goal and take full advantage of the university's resources, the local government has issued a series of policies, encouraging residents learn new skills and enhance the endogenous motivation. The most innovative policy was the "3X+4145" policy. The prerequisite for this policy is that the poor individual himself hands in 200 RMB, the government adds 2,500 RMB, and the poverty-alleviation cadre raises 300 RMB, which equals to 3,000 RMB, representing '3'. The total '3' thousand RMB could be used in developing 'X' (various) diversified industries. In this way, for '4' consecutive years, poor individual can earn more than '1' thousand RMB per year and enjoy '4' priority policies. For companies that drive them out of poverty, every time a poor household is driven out of poverty through industry, they can get a bonus of '5' hundred RMB (Xin, 2018). Thanks to the innovative poverty alleviation policies and the rapid development of the steel and coal industries, the county has witnessed most significant changes over the past decade.

> *Significant changes: the most intuitive feeling is the realisation of '135' poverty alleviation plan. In the most severe stage, the incidence of one poor population was 20.3 per cent in 2014, compared to 0.06 per cent in 2020. There were 7,900 poor households in 2014, more than 20,700 people, while in 2020, there were only 22 poor households, 66 people. There were great changes in income as well. The per capita income of poor people reached 8,000 RMB per year, and people can certainly feel it. Economically, in 2019, the regional GDP was 10.75 billion and the financial and public budget was 1.17 billion RMB, an increase of more than 30 per cent than 2014.* (Mr. Lee, government official)

4.2.4 Comments on the university's aid

All government officials spoke highly of the university staff members regarding their personal ability to deal with local problems. Based on the previous section, it is apparent that the interviewees knew well of the university's contribution, but since the platform was built by local and central government, the top-down nature of poverty alleviation is nonnegligible. All interviewees indicated that the current university staff

members were greatly involved in the local community and could fully dedicate to the poverty alleviation tasks. Thereby, the cooperation between two sides was excellent. In addition to comments on individual staffs, the interviewees also appreciated the great preparation work and thorough survey done by the university side.

> *The cooperation between Beihang and Zhongyang is particularly good. At least three-party secretaries and presidents came to Zhongyang for research and helped with poverty work 3 to 4 times a year. Moreover, the six staffs of Beihang did have a good reputation and enjoyed a sterling reputation among the community in general. No matter where they are, they can settle down quickly and work hard. They devoted much time to this work and implemented innovative ideas. Beihang has made a great contribution. Everyone in Zhongyang recognized it.* (Mr. Lee, government official)

There were some doubts as well. Some interviewees expressed their concern that differences in perceptions of poverty alleviation could disorder programme implementation. It was hard to say whether the university staffs had invested as much as expected and whether they put that investment where it needed to be. Though the original intention was good, many innovative programmes were like gimmicks. It was undeniable the university had advantages especially in training resources. However, some officials suggested that the discussion and training were formalistic without solid and effective work because many trainees only passively accept their training without critical thinking. Meanwhile, the interviewees called in question the capacity of local people to reach the height of the university, whether they had the fundamental understanding and necessary cognitive competence.

In addition, there were also some doubts about the policy itself. First, the requirement of accurate targeting was difficult to achieve. Some interviewees expressed how hard it was to find people who truly needed help, as most people had little difference in income and only a small group was in extreme poverty. Some people had invisible income, which made it more difficult to accurately identify poor households. Some poor households were not satisfied with the distribution of support and appealed to the higher authorities for help. Secondly, some interviewees complained about the idle atmosphere among poor people.

> *There are also doubts about the policy. Some people were too lazy to help them. Like a patient, if he could walk only when people help him up, it will be very exhausting. We expect the poor people could recover through their own efforts, but this is not the case. Moreover, China is a typical society of human relations, but a series of poverty alleviation policies have weakened this tradition. Respecting and taking care of seniors is the traditional virtue of our Chinese nation. But with the help of the government, their responsibility became ours and I cannot feel the warmth among people.* (Mr. Wang, government official)

There were other doubts, for example about the prospects of industry development, as the position in the industrial chain was still low-end, and the university was necessarily playing merely a guiding role.

4.2.5 Evaluation of policy enactment

At the end of the interviews, the interviewer asked about officials' overall perception of the policy and how well they thought that they had implemented it.

The interviewees approved the facts that the current poverty alleviation policy was locally adjusted and had high practicability, although different people had different levels of understanding and implementation of policies. The high practicality was due to the thorough survey before formulating the local policy. The local officials had participated in every aspect of the poverty alleviation including policymaking and policy implementation. They all indicated that they actively engaged in all innovative projects, reaching local industry development, education, sustainable development, and employment targets.

There were a number of evaluation principles, among which the livelihood issues were the priority. Local government displayed high attention to all quantifiable items in poverty alleviation, the consequence of which would be compared between different regions and tested across different levels of government. Each individual

official was responsible for supervision of the income and troubles of one household only and had to be sufficiently meticulous in reporting to the relevant department of government for help. This responsibility could be handled easily. Nevertheless, many acknowledge that the 'person issue' was arduous, such as issues with the poor people's mindset and the lack of self-reliance spirit. In regard to these ambiguous issues, they could only exercise a pick-and-mix adoption approach. In addition, there was another limitation. Officials was confined by the idea that that they had to wholly conform to the expected policy request. They had no scope to bring forth new ideas. The respect given to the Higher Education Institution and external assistance made the local government passive in promoting industry innovation.

Despite all these issues, most officials acknowledged they had experienced a great sense of achievement in the process, and personal growth as well.

4.2.6 Objectives in the next stage

After the completion of first stage task, the ending of absolute poverty, the central government called for the launching of rural revitalisation. The government officials envisioned a stable and consistent overall policy to consolidate the previous achievement. Though many interviewees still found the next stage of poverty alleviation unclear, they indicated four key words that they would carry through from the previous stage: responsibility, assistance, policy inclination and supervision. Some also shared their anticipations for rural revitalisation. This included issues of all sorts, including the ageing problem, the brain drain issue and failing infrastructure. Interviewees indicated that the assistance of university was indispensable, as the next stage requiring overall planning and the involvement of both the rural and urban population. They emphasized the needs for improved quality of life and narrowing of the urban-rural gap.

> *We need a transitional period, and relevant policies should be issued in all aspects, including talent revitalisation, ecological revitalisation, and environmental revitalisation. A more systematic planning is needed. Landscaping, water quality, soil and air quality should be greatly improved. This stage is more difficult because it involves more aspects. The previous*

anti-poverty campaign was mainly aimed at ensuring the basic income of poor households. At present, in the rural revitalization, urban and rural population are all required to participate with greater efforts in a wider range. (Mr. Lee, government official)

4.3 University Staff members' Perspectives

In the previous section, the government officials introduced poverty alleviation projects supported by the university, mainly focusing on its contribution to local development. In this final section of the chapter, this study focuses on the university staff members' perception.

To fully understand the poverty alleviation work in Lvliang, this study interviewed five university staff members who were respectively in charge of three counties, Zhongyang, Fangshan, and Liulin. They had various poverty alleviation tasks based on different local requirements, but the similarity was that they all drew on the characteristic advantages of the university to help solve local issues.

4.3.1 Cooperation with various education institutions

In the previous section, local government officials briefly introduced the support of Shanxi Agricultural University, which allocated professors to provide online technical training guidance, and overall planning in systematic edible fungus cultivation. However, when comparing to Beihang university, most officials expressed doubts on management ability and scientific and technological competence. Some even had no idea about the influence of the Shanxi Agricultural University on local development. In contrast, the officials spoke highly of the universities from Beijing. Nevertheless, while interviewing the university staff members, this study gathered a totally different viewpoint. One university staff member who was responsible for Fangshan pointed out that local universities have made great contributions to poverty alleviation, but the focus of publicity is on well-known universities. Many other university staff members emphasized the important role of local universities.

> *There are many universities in Shanxi, including various teachers' colleges. They are solid and stable foundation of local development. Talents from these college usually stay in Shanxi and contribute to the local development. Over the years, a large number of university talents have poured in and gradually changed the talent structure. The development mode of Shenzhen is the same, with many talents contributing to its urbanization. Talents are also needed in second and third tier cities. We must ensure the quality of these universities, only in this way can we change the backward status of Lvliang. Rural Revitalization must be supported by local talents as well.* (Tyler, Beihang University, Zhongyang)

Other university staff members indicated that the local university could better understand the local requirement and meet the local needs.

> *Lvliang University is in charge of two villages in Fangshan, assigned by the Poverty Alleviation Office of Shanxi Province. It also has contributed a lot and done well. It has held many trainings courses in the region regarding coal mining related industry, combining local characteristics with skills explanation. Lvliang University also allocated two university staffs in the village, and the depth and breadth of participation in poverty alleviation was high.* (Frank, Beijing Institute of Technology, Fangshan)

Besides Lvliang University, there are also many vocational schools which had greatly contributed to the accumulation of local talent. For example, in previous sections this dissertation mentioned the focus on e-commerce development in poverty alleviation. These vocational schools had trained many graduates who could meet the needs in e-commerce management, website content design, live broadcasting platform and so on. However, a serious issue with the local university and vocational schools was the insufficient use of university (school) resources and the limited influence of local schools. Under this circumstance, at least regarding poverty alleviation results from 2015 to 2020, the interviewer could hardly hear government officials in Zhongyang talking about the contribution of local tertiary education institutions to local development.

4.3.2 Comparative advantages and disadvantages

When discussing universities' contribution and limits in poverty alleviation, all interviewees compared themselves to other government sectors such as the Organization Department of the Central Committee of the CPC, central enterprises and so forth. University staff members said that since colleges and universities were social welfare institutions, not profit-making units, they had their own disadvantages. First, interviewees pointed out that universities' ability to mobilize resources was less strong compared to the ability of central state sectors that were superior departments. Furthermore, the investment of central enterprises in poverty alleviation was dozens of times that of the university.

> *The poverty alleviation tasks were allocated by the central government, so the ministries and commissions have many advantages, such as the strong coordination ability in all aspects. Different from these government sectors, state-owned enterprises are good at investment.* (Frank, Beijing Institute of Technology, Fangshan)

One interviewee was a member of 'doctoral student service group'. Different from university staff, doctoral students were graduates from different prestigious universities and had little or had no experience in government sector or central enterprises. The interviewee believed themselves more practical in solving problems and better at hands-on management compared to university staff members. They thought the university's academic character partly limited its involvement though it could contribute to industrial transformation or product development. In contrast, the doctoral student service group aimed at conveying the administrative skills and experience they have learned to the local government. In 2020, facing the covid situation, one member came to Lvliang, directly guiding the pandemic control work and teaching local sector how to use equipment. The doctoral students service group mainly occupied administrative posts in key departments needing external assistance and talents support. It was flexible as well. For example, in the initial stage of the

pandemic, a doctoral student who had working experience in Shenzhen CDC helped guide the pandemic control work in Lvliang.

> *The major contribution of university is on technology and science support. If science and technology can solve the problem, they (local government) can find colleges and universities for help. For example, as for agricultural projects as Jujube planting planning, agricultural university could give advice on how to avoid the rainy season. The doctoral service group does not do scientific research, unless the original sector is doing scientific research. But we are more practical. For example, one of our members is the director of the big data Bureau of Futian District, Shenzhen. He has organized these work for more than two years. It has been built and operated smoothly. He has experienced a complete set of large projects. When he came here, he could give direct guidance.* (Oliver, Doctoral Service Group, Liulin)

Nevertheless, universities also had their advantages. Firstly, the university staff members indicated that they held more space for innovation. Though there was not so much capital investment, universities could mobilize human resources to help at more levels and in more aspects. The breadth and depth could be actively adjusted according to local needs. For example, university staff members held many educational cooperation programmes, the result of which could hardly be evaluated but in the long term contributed to education reform. Secondly, the university's contribution to the underdeveloped region was described as changing the local development mode from blood transfusion to autonomous haematopoiesis. Take the company incubator for example: it had formed a long-term mechanism. The university staff members called this incubator 'cultivating a work team never leaving Zhongyang'.

Moreover, the interviewees talked about the similarity between poverty alleviation work and their previous working experience in the university. Under the general policy framework, there was a large space for creation and practice. Like student management work, there were no specific index requirements, and their task was to simply serve the public as much as possible and meet the public's requirements.

In fact, majority of work is based on various poverty alleviation staffs. As introduced at the poverty alleviation, there were millions of poverty alleviation officials across the country including local government officials and external assistance officials. It is difficult to make it clear who contributes more to the current achievement. In general, government determines the direction and the university help keep the process stable. For example, to optimize the industry is the main direction for now and how to reach this goal smoothly is what we are working on. (Tyler, Beihang University, Zhongyang)

4.3.3 Local development issues and core development goals

First, the local investment environment was unsatisfiable. External capital pursued the rate of return and basically only invested in coal mines or related infrastructure reconstruction. Alumni enterprises could help introduce new companies but had only little effect. The transportation was inconvenient compared to the East coast of China and the local subsidy was incomparable to that of large cities. Interviewees pointed out that if more investment could be attracted, it would be far better. Moreover, the government should introduce tax incentives to encourage investment.

In October, the high-speed railway will be built, but this is not enough, and the freight transportation is still needed. In the east coast, the cost of external communication and especially the cost of water transportation is relatively low. There are no advantageous preconditions of developing commerce in the western inland. To remedy that, the government promulgated preferential policies like reducing taxes or helping build factories, but it is not attractive enough since other regions also have the same policy. (Frank, Beijing Institute of Technology, Fangshan)

Secondly, the unbalanced development mode restricted the development of other industries. There were very few good enterprises except for coal and steel enterprises. In Fangshan, there were five coal mines which accounted the largest proportion of GDP. The newly developed tourism industry faced influential and long-established competitors in Shanxi Province.

> *This is a curse, resource curse. If the return on capital of something in the region is too high, the investment channel will be unitary just like the capital is concentrated on coal mining, and other industries cannot develop. Thereby, the largest enterprises are coal enterprises.* (Frank, Beijing Institute of Technology, Fangshan)

Thirdly, there were obvious regional differences between various counties as well. The GDP of Zhongyang and Liulin was 10 times that of Fangshan. Different regions had to have different strategies in poverty alleviation.

The interviewees illustrated three key goals of the university's assistance. First, they aimed at changing people's mindset. To change people's mindset, the interviewees emphasised the importance to change passive assistance into active motivation to get rid of poverty. To prepare for the rural revitalization stage, the most important thing would be to stimulate the potentiality of rural areas, give full play to their own advantages, and cultivate their ability to get rich. In the case of immigration and relocation, the university staff members helped persuade poor households to move to a liveable place where the basic amenities like water and sanitation were ensured.

> *Our priority is to create opportunities for local people to find their own aspirations and use skills to earn their own living. On the one hand, we provided various education resources including skill training courses, and on the other hand, we launched various projects to develop new industries and publicize them among people to attract them. It is systematic. Through raising people's income and improving the education level, and finally, we aim at establishing confidence in getting rid of poverty and becoming rich.* (Mike, Beihang University, Zhongyang)

Moreover, the university staff members also cooperated with the government to develop critical infrastructures and create new workplaces for these residents. In the changing of people's mindset, the university again supplied important assistance. They also emphasized developing various industries, and rational planning. Whether it was agricultural products or cultural products, universities hoped to help form and

carry forward local industries. This was in line with the current poverty alleviation needs, to introduce various resource and attract diverse talents. Finally, to connect effectively with rural revitalization, the university also worked on improving people's quality of life.

> *Now the emphasis of our work altered to the problem of relative poverty. We hope to improve the education and life quality, enrich the industry as much as possible, and finally make the countryside liveable. We expect to truly turn the occupation of farmer into a promising career and turn agriculture into a promising industry. The plan needs to be adjusted in the follow-up period. Moreover, innovation matters. At present, we are planning a new industrial park, but there are many problems to solve like whether enterprises can come in. We planned to invite the expert team to make an assessment, puts forward suggestions, and adjusts the planning. The fungus industry has also developed, and experts in this field have been introduced.* (Tyler, Beihang University, Zhongyang)

4.3.4 Innovative measures

Regarding the poverty alleviation projects, the university staff members provided new perspectives, not just limited to the local development, but from the perspective of research and the benefit to university students.

First, the interviewees mentioned measures taken to achieve industrial transformation and upgrading. This included '*Shugu Lvliang*' (Digital Valley Lvliang). With the support of China Association for science and technology, Beihang University, Beijing Institute of Technology, other Institutions directly under the central government, local universities, as well as many academicians and experts, Lvliang has held four consecutive big data industry development conferences, created '*Tianhe* 2' provincial Supercomputing Centre, Huawei Shanxi (Lvliang) big data centre, 'central-and-western China' data centre, and built a talent support system of '*Yiwei Sanyuan*' (one committee and three institutes). Big data also actively promoted the digitization of industry, people's livelihood services and government service quality (Yaping, 2018).

> *Shanxi province has the first batch of 5G companies in China. But at first 5G was not used in mobile phones since 4G could already meet our daily needs, as playing mobile phones. It is well constructed and well applied in education and medical treatment area. Besides, 5G sites are arranged and re applied for local need such as in coal mines. Before 2025, we plan to realize automation in coal mines.* (Frank, Beijing Institute of Technology, Fangshan)

Secondly, the university staff members brought about various education resources which not only benefited local students but also provided opportunities for university students to improve themselves. For primary and middle school students, Beijing Institute of Technology held summer camp programme annually and ran cross-region communication between schools in Beijing and Lvliang in the form of exchange of delegation of two schools. One interviewee who was responsible for the summer camp programme introduced the future improvement plan of this programme. Though the programme was still in its starting stage and had many shortcomings, students and teachers had great flexibility in coordinating the project.

> *We will look forward to more in the future. At present, the School of Foreign Languages would focus on the improvement of teachers' teaching ability. This is a long-term plan. In addition to teaching primary school students, we also provided training courses for local English teachers regarding their teaching methods and teaching ability.* (Joe, Beijing Institute of Technology, Fangshan)

For high school students, Beihang University established an experimental base which provided various courses such as UAV (unmanned aerial vehicle), big data, finance and so forth. Undergraduate or graduate students were responsible for teaching and leading the courses. This experience strengthened students' understanding of basic knowledge and added to their practical experiences. Thereby, this was a win-win situation for both local students and university students.

> *Last month, the UAV team of Zhongyang High School won the second prize in Shanxi province. It was unimaginable before. The aircraft model team belongs to the experimental base, where local students could select courses and take*

> *lectures, exploring their interests. Moreover, there are many projects for university students as 'Challenge Cup' and entrepreneurship project. The university encouraged them to come to Lvliang so they have the opportunity to do research in person, in Zhongyang. Students' thoughts could be applied and improved in the actual operation, and local students could also participate and make a suggestion to various projects such as company operation project and education project.* (Tyler, Beihang University, Zhongyang)

An interviewee talked about a typical student fieldwork project in Lvliang, which provided a good demonstration for other students. To finish the graduation thesis, two senior students came to Fangshan, studying workshop management in the field. They made great progress since they saw the real practice rather than just talking about theories. During this process, they not only gained great thesis results but also learned about the real condition in poor regions, which greatly enhanced their sense of social responsibility.

Thirdly, the university was committed to establish the university-industry-government cooperation mode for finding a way to promote local development, employment, and improved quality of life in local cities. In the early stage of the poverty alleviation, Beihang University organized research activities in Zhongyang and invited more than 100 alumni, alumni enterprises, 200 to 300 students, and experts from the scientific research institute to discuss the problems and potentiality in development and determine the direction of assistance. Once the problem was identified, university staff members would propose a preliminary plan on a small scale to test its feasibility and then extend that to a large scale, taking advantage of scientific and technological resources. For example, the university personnel found out that local people did not know how to properly treat fertilizer, and they were not used to collecting fertilizer regularly. Thereby, Zhongyang introduced an alumni enterprise, an organic fertilizer plant. With the help of alumni enterprises, the fertilizers could feed back to fungus and vegetable greenhouses. Moreover, to meet the rural revitalization needs and create characteristic industries, Zhongyang planned to build a 20-billion-yuan industrial park for a coking plant with the support of Beihang University.

> *The poverty alleviation template in Zhongyang may not be successful in other places. Zhongyang has a strong industrial force. The new direction of development could be industrial park and neo-agriculture, and this model is difficult to reproduce. At least for now, the integration of education, science and technology enterprises, and alumni is still effective. We are exploring potential cooperation in other aspects and hope it can work at full capacity.* (Tyler, Beihang University, Zhongyang)

Fourthly, various university schools were involved in poverty alleviation, giving full play to their distinctive strengths. In Fangshan, the school of art and design of Beijing Institute of Technology helped in urban planning and design. In 2020, Beijing Institute of Technology helped local companies apply for patents and reached technological breakthroughs. Furthermore, with the University's help in science and technology, Shanxi Zhongyang Steel Ltd established long-term cooperation with the School of Materials of Beihang University. They had reached about eight cooperation agreements.

> *To develop ecological economy and limit the pollution industry, the local government decided to make the cultural tourism industry the centre of development. The school of art and design of Beijing Institute of Technology engages in community design and tourism routes design. We set out to investigate ancient villages and made 3D model display. Combined with the development direction of the county, we took into consideration the mountains, former residences, and ancient villages. Finally, we launched a series of cultural and tourism products for sell.* (Frank, Beijing Institute of Technology, Fangshan)

Chapter Five Discussion and Conclusion

5.1 Key findings

In the previous chapters, this study has presented evidence from interviews with university students, government officials and university staff members, concerning the role of university in poverty alleviation. The central question of the study is to investigate:

How are prestigious universities involved in the process of poverty alleviation in Lvliang and how do they contribute to local development?

In particular, the research sub-questions are:

Sub-question 1: How are the sustainable development goals embodied in Lvliang's poverty alleviation policies?

Sub-question 2: How do prestigious universities build connections between large cities and the impoverished region of Lvliang while establishing a long-term cooperation mechanism?

Sub-question 3: What are the development problems and how do the universities mobilise resources to meet local development needs?

This discussion section addresses the main research question by summarising the findings of the thesis in relation to the sub-questions. The thesis then closes with sections on limitations, and ideas for further research.

5.1.1 Sub-question 1: The SDGs and poverty alleviation policy in Lvliang

In relation to sub-question 1, though the poverty alleviation policy does not explicitly state the 17 SDGs of UNESCO, the content of the policy appears coherent in dealing

with development issues and the concept of sustainable development runs through it. Three key principles are as follows:

1) Ensure local people's intelligence (skill) and ambition (aspiration). Here the universities took into consideration both children and adults. On one hand, they provided a summer school programme to connect rural children with university students and established the experimental base for high school students to explore emerging fields for future development. On the other hand, they provided training courses for poor households to learn skills to earn their own living.

2) Promote industrial transformation and upgrading and create new jobs. Here the universities took advantage of their platform resources, science and technology resources and human resources to boost local development. They built the business incubator and introduced alumni enterprises, leading the development of e-commerce, and publicising the local cultural heritage. In the larger scale, they cooperated with the provincial government to build the Big Data centre.

3) Targeted efforts to realize the transformation from 'blood transfusion' assistance to 'hematopoietic' assistance. The university-industry-government cooperation should form a long-term mechanism, cultivating internal dynamics. This principle also applies to the Rural Revitalisation stage. It is intended that rural revitalisation would pursue the goal of more sustainable development, which not only include bringing the poor out of poverty but also arousing the vitality of development. In other words, the in-depth participation of the university, and assistance from diversified social groups, would be even more necessary in future.

5.1.2 Sub-question 2: Reflections on the summer camp programme

Sub-question 2 asks about how prestigious universities build connections between large cities and the impoverished region as Lvliang while establishing a long-term cooperation mechanism. The education programme is an effective way to reach in-depth communication between two sides and till now it has formed a stable cooperative mode. The study has found that the education programme is not well-

organised at the initial stage, especially the coordination of leaders from different schools, the coordination between different courses, communication, and overall planning. (‘the university’ regarding education programme refers to Beijing Institute of Technology.)

From the perspective of university students, many university students who joined the programme only had a vague concept of poverty alleviation, and the expectations created by the publicity given to the programme cannot be satisfied. Insufficient preparation work creates difficulties in adapting to the real situation. It becomes important to recruit qualified and experienced volunteers to pass on the ideas and experience of previous teams to new potential students. The University should also consider seeking cooperation with NGOs that could provide supervision and recommendations. Furthermore, to truly engage all of the young local students and efficiently build the relationship within a short period, university students should add multiple and diverse activities, not limited to teaching and learning, to the programme.

From the perspective of university staff members, essentially the summer camp programme is an extracurricular activity, rather than the students’ fundamental task in university. However, it still matters, as a form of community engagement with numerous benefits. The university side acknowledges the arduousness of the task and knows that it will be a long-term process. Therefore, how to adjust and improve based on different situations is like planting seeds, and exploring slowly. There is no guarantee that university students’ help will directly motivate local students to take a leap in their future life. It is worthwhile as long as they can change one child or more, influencing their habits and future planning. The present study understands that in the future there might be an overall change of the programme, at the level of curriculum and the wholesome organization. The university will take efforts to work on improving the efficiency to bring more university resources to poor areas. In the future rural revitalization stage, new models will be created and popularized.

The experience of the summer camp programme leads to suggestions for its improvement:

1) One important element is the need to pass on the ideas and experiences of previous teams to other potential university students, to help in recruiting qualified volunteers. Communication about the programme, and of the factors that affects its effectiveness is important.

2) Universities should explore more diverse ways to publicise the programme to reach a wider group of students and fix defects of the programme. Many university students complained about the publicity work, as the university mainly used extra *zongce* credit to attract new participants which was attractive because the *zongce* could influence one's final ranking related to scholarship competition. But this almost only attract people who wants to get good grades rather than those who are truly eager to participate in poverty alleviation work. In addition, there were some defects that discouraged students to join the programme: the feedback from senior students were most negative; many students thought they gained little from these programmes and when the school could not recruit enough participants; the university asked students leaders in different organisations to join, which made the programme partly compulsory.

3) Regarding the local students' reactions to the programme, the number of students who were passive and silent was far greater than the number of active students. Thereby, an active and experienced team leader in the teaching group becomes quite important. Since most students did not have previous teaching experience, it was hard for them to motivate students and arouse their interest. An experienced leader would put forward a teaching plan to truly engage students, build great relationship with students within a short time and interact with them more effectively. Volunteers should not be limited to the conventional form of teaching only. The uniqueness of their major could be expressed in entertaining ways.

4) The filtering process is also very important but as mentioned above, given that the publicity for the programme is not as influential as expected, and if there are not enough students to sign up, the establishment of a well-formed filtering process is impossible. This is where some volunteers suggested to bring in the help of NGOs that are more professional in recruiting students and provide training.

5.1.3 Sub-question 3: Key developmental issues and solutions

In relation to sub-question 3, this section firstly discusses the local condition and development issues. Then it explores the existing solutions to these problems and the cooperation mode between university, industry, and local government. (Here, the university refers to Beihang University.)

The key developmental issues in Zhongyang are as follows: education issues, energy supply issues, health insurance issues, infrastructure building, and industry development issues. The educational issues include promoting equal right to receive education and blocking intergenerational transmission of poverty. Furthermore, education is implicated in changing people's mindset and providing education for adults. In addition, the researcher also finds that Lvliang failed to mobilise the strength of the local university. In the following section, this dissertation would summarise how two prestigious university worked on these local issues, taking advantage of its own strength.

There are two key resources support provided by Beihang universities, including alumni support and intellectual support. In relation to alumni aid, the university played the role of a coordinator for bringing in alumni enterprises. Beihang university once invited more than 20 alumni to have a field visit in Lvliang and later many enterprises chose to settle in the local business incubator, which was also initiated by the university. Thanks to university's appeal, many alumni enterprises were attracted to make investment and in turn, promote local economic development. Besides introducing branch office in Lvliang, the alumni enterprises also help buy products and publicise local brand.

Beihang university also provided intellectual support, which was mainly reflected in various training resources and R&D support. The training helped to develop entrepreneurship and an innovative atmosphere, and many innovative ideas were passed on by teachers or professors in the university. This had great effect on the development of local industry. The core concept was to embark on advanced local

field work and introduce science and technology support to facilitate local development. Furthermore, there were training for local government officials as well. The purpose of official training was to improve their understanding of the poverty alleviation policy and ensure law-based administration of government. The training was also provided for local teachers, but more in the form of a seminar rather than formal training. Regarding R&D support, the university cooperated with Shanxi Zhongyang Steel Ltd., the most influential local company. Together they established the high-end steel and coal technology research and development centre. Moreover, they also initiated the business incubator to support small and micro enterprises, meanwhile generating new workplaces.

The local universities are hardly part of the development course, and they are rarely called upon. Even in the poverty alleviation process, they are consigned to peripheral roles. Partly due to the influence of prestigious universities and preconceived ideas that Lvliang is an underdeveloped region, people focus more on the role of external assistance than internal forces. Nevertheless, it is undeniable that university are crucial to local development, and internal sources of growth needs to be developed, in all aspects. With the increasing number of innovative projects (Digital Valley Lvliang) initiated by prestigious universities, hopefully more people could realise the cornerstone foundation of the local university and local resources can be fully utilised.

In terms of the mode of cooperation, though poverty alleviation is more of a top-down, policy-driven act, the locally based enterprise is an inseparable part in poverty alleviation. The cooperation between different sides can be described as follows: the government taking the leading role, local enterprise being the main body, and university playing the bridging function. However, the current assistance occurs on the basis of expediency. In the long run, only partnership can generate lasting benefits. Thereby, a long-term mechanism must be established. According to the national policies, the university would continue to help in the next five years. Five years ago, they embarked on the targeted poverty alleviation. In the next five years, their focus would shift to Rural Revitalization. In this process, each side needs to cooperate and keep exploring the characteristic system suitable for different places.

5.2 Limitations of the study:

Since this study has adopted the qualitative research paradigm, it is interpretative in nature (Ochieng, 2009). In line with the qualitative research methods, the author includes detailed observation and research context to ensure the comprehensiveness of the study. In account of the limited literature in this field and the uniqueness of local situation, this dissertation is descriptive and lacks rigidity. Moreover, it does not clearly define how and why certain elements were valued to the exclusion of others. With little statistics support, this study is still in the initial stage and needs more critical consideration.

Secondly, the discussion has overwhelmingly focused on the policy performers, their comments and understanding of the policy. It overlooks the feedback of the public whose voices are indispensable while evaluating the policy enactment. Furthermore, the research only derives from a small sample and lacks an overview of the situation, so the findings could not be extended to general situations with the same degree as quantitative study (Ochieng, 2009).

Thirdly, there are ambiguities in this study and the researcher might not correctly capture the real meaning the interviewees want to express. Future research needs to be strengthened by taking a mixed approach and combine validated data and exhaustive analysis.

5.3 Implications for further research:

Future works must include voices of poor households and entrepreneurs to critically examine the research question. A longitudinal design should be adopted to obtain a comprehensive understanding of the poverty issues. At the turning point of Rural Revitalisation, future studies must consider the policy driven nature of this act, the overall policy background and how the policy is going to change in the future. Only in this way can the research explore the role of the prestige university in facilitating local development. Moreover, the contribution of local universities requires further

exploration. It is also vital to narrow down and probe into the specific attributes of Higher Education Institutions engaged in the development programme

Finally, it is essential, on the basis of accumulated experiences in future, to investigate and evaluate the long-time potentials and effects of that university engagement.

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Appendix A

Sample Interview Questions:

As this is a semi-structured interview, the questions shown below are just part of the interview content and might be changed or augmented as a result of the previous answers.

Questions for university students:

1. What were your reasons for joining the teaching programme? Is there any credit attached to the community engagement program of your university? If not credits, is there any other award for encouraging you to join?

2. Did you receive formal (informal) training or take preparatory classes before practice? What else resources were provided by the university before you started the activity?

3. How did you know about poverty alleviation programs? Do you think the university's propaganda of this programme moved you and how? Have you ever heard any feedback from senior students who joined this programme? Was their feedback positive or negative?

4. Did the teaching programme change your impression about poverty, and what were other unexpected findings? Was there anyone or anything that remained in your mind for a long time?

5. How do you think about local students, and what essential resources do they lack most from your perspectives? As a university student, what is your role in this process and what is your advantages compared to other social workers?

6. What are the benefits and weaknesses of this programme? What did you learn from this programme, and do you think university student should be encouraged to engage in community service? Why?

7. What are your recommendations for improving the programme? What else resources do you think the university can take advantage of to help students in underdeveloped regions?

Questions for university staff members:

1. How did you first know about this poverty alleviation programme? Is there any monetary incentive attached to the community engagement program of your university? If not, is there any other award for encouraging you to join? (Why did you decide to join?)

2. Since social workers might encounter complex situations in the targeted region, how did you prepare before the programme started? What support was given by the university, and how did your university maintain the relationship with the local government?

3. Do you think working or studying experience in university help you prepare to deal with local conditions? To what extent does it help or not? How do you think this experience shape your personality, and will it influence your future career or way of thinking when you return to university?

4. Which one of the poverty reduction activities was you involved in impressed you most? Why? Do you think there is any substantial change out of this activity? If not, what recommendations do you propose?

5. Do you know the sustainable development goals of UNESCO? Among 14 goals, please select four of these goals that you think is the most urgent for local needs. Can you explain what the university can do and improve the situation regarding the top 4 urgent goals?

   Goal 1: End poverty in all its forms everywhere
   Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
   Goal 3: Ensure healthy lives and promote well-being for all of all ages
   Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
   Goal 5: Achieve gender equality and empower all women and girls
   Goal 6: Ensure availability and sustainable management of water and sanitation for all
   Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all
   Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
   Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
   Goal 10: Reduce inequality within and among countries
   Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable Goal 12: Ensure sustainable consumption and production patterns
   Goal 13: Take urgent action to combat climate change and its impacts
   Goal 15: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
   Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

   Goal 10: Reduce inequality within and among countries (deleted)

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development (deleted)
Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development (Finance, Technology, Capacity Building, Trade, Systemic Issues) (deleted)

6. How is your cooperation with the local government? How do you depict your relationship? Can you sense power relation in your collaboration? You may give a grade from 1 to 10, from the weak to strong of your position.

7. When depicting your attitude in the policy implementation process, where do you see yourself (university) on this scale? Why? And how do you see the local government?

Questions for local government officials:

1. Based on your experience in Lvliang, what do you sense regarding the difference in poverty alleviation policy after the university came here? What is the difference between previous acts and the present policy implementation?

2. Do you know the sustainable development goals of UNESCO? Among 14 goals, please select four of these goals that you think is the most urgent for local needs. Can you explain what resources or aid you need to improve the top 4 urgent goals?

   Goal 1: End poverty in all its forms everywhere
   Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
   Goal 3: Ensure healthy lives and promote well-being for all of all ages
   Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
   Goal 5: Achieve gender equality and empower all women and girls
   Goal 6: Ensure availability and sustainable management of water and sanitation for all
   Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all
   Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
   Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
   Goal 10: Reduce inequality within and among countries
   Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable Goal 12: Ensure sustainable consumption and production patterns
   Goal 13: Take urgent action to combat climate change and its impacts

Goal 15: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

3. Among the top 4 urgent goals, to what degree do you think the university aid satisfy the needs? And what was deficient in this aid? What kind of resources brought by the university is the most precious from your perspective? (human resources, capital aid, construction aid, entrepreneurship development)

4. Can you depict one programme or activity in the policy implementation process that you think is the most helpful or achievable within your field or for the general poverty alleviation progress? Why?

5. How is your cooperation with universities? How do you depict your relationship? Can you sense power relation in your collaboration? You may give a grade from 1 to 10, from the weak to strong of your position.
6. When depicting your attitude in the policy implementation process, where do you see yourself (university) on this scale? Why? And how do you see the university?

7. For the current policy alleviation policy, what are your concerns and prospects of this policy, considering the fact by 2020, all rural residents living below the poverty line have been lifted out of poverty, with absolute poverty being eliminated in poor counties and regions. Will your cooperation relationship change, and what do you think is essential at the next stage?

<u>Questions for local residents:</u>

1. What activities with the university's involvement have you participated in? Do you think that activity has partly changed your life from any perspective? Is it a good change or a bad one, and can you explain it?
2. Based on your life experience in Lvliang, have you sensed any difference after universities came? Please depict some of the most significant changes in your life or your community.
3. What do you think are the difficulties many people are experiencing now? (few job opportunities, low average salary, unequal education opportunities, hunger, sanitary issues, energy inefficiency)
4. How is your relationship with university staffs? Do you communicate a lot? What specific benefits have been brought to your family?
5. Do you know the *kuaishou* app and the use of an online platform for selling goods? Regarding agricultural product, do you think this way helps?
6. Do you have recommendations for the policy and what is omitted in this policy but are quite essential for the community?

7. What is your education idea? Do you want your children to go to university? Do the university staffs change your view of the university?

Appendix B

Ethical approval form

The University of Oxford places a high value on the knowledge, expertise, and integrity of its members and their ability to conduct research to high standards of scholarship and ethics. The research ethics clearance procedures have been established to ensure the University is meeting its obligations as a responsible institution. They start from the presumption that all members of the University take their responsibilities and obligations seriously and will ensure that their research involving human participants is conducted according to the established principles and good practice in their fields and in accordance, where appropriate, with legal requirements. Since the requirements of research ethics review will vary from field to field and from project to project, the University accepts that different guidelines and procedures will be appropriate.

Please refer to Where and how to apply for ethical review and the CUREC flowchart first to see if you need ethics approval.

Please complete this form using a word processor and email it, together with your supporting documents, to your Departmental Research Ethics Committee (DREC) (if applicable). If you don't have a DREC please email this form to ethics@socsci.ox.ac.uk using your official ox.ac.uk email address. Only type-written, emailed applications will be accepted.

SECTION A: Filter for CUREC 2 application		
This section determines whether your study raises more complex issues requiring the completion of a full application for ethical review, known as the CUREC 2 application. **(Please mark 'X' in the Yes/ No column.)**		
1. Are research participants classed as people whose ability to give free and informed consent is in question? (This may include under 18s (although see competent youths), prisoners, or adults at risk.) Your attention is drawn to the University's Safeguarding Code of Practice and its implications for researchers involving children or adults at risk. This includes the need for the work to be risk assessed and for researchers to undertake related training. (**Note**: If any of your participants are aged 16 or under, answer 'Yes' here **and** also answer question 5 below.)	Yes ☐	No ☒
2. By taking part in the research, will participants be at risk of criminal prosecution (e.g. by providing information on drug abuse or child abuse)?	Yes ☐	No ☒
3. Does the research involve the deception of participants?	Yes ☐	No ☒

4. Does your research raise issues relevant to the Counter-Terrorism and Security Act (the Prevent duty), which seeks to prevent people from being drawn into terrorism? Please see advice on this on our Best Practice Guidance web page.	Yes ☐	No ☒
If you answered 'No' to **all** the questions above, go to **Section B**. If you answered 'Yes' to **any** question above, continue to question 5 below.		
5. Is your project covered by a CUREC Approved Procedure (formerly known as "CUREC Protocols")?	Yes ☐	No ☐
If yes, give the specific Approved Procedure number(s):		
If you answered '**Yes'** to **ANY** of questions **1-4**, **and** answered '**No'** to question **5**, **stop completing this checklist and do not submit it for ethical review**. Instead, complete the CUREC 2 application form from the CUREC website, then submit that for ethical review. If you answered '**Yes'** to ANY of questions 1-3, **and** answered '**Yes'** to question 5, go on to **Section B**.		

SECTION B: Contact details and project description	
Contact details:	
1. Principal Investigator **or** supervisor (if student research) (give title and full name)	Professor Simon Marginson
2. Name of student (if student research)	Sichen Ren
3. Degree programme (if student research), e.g. BA, BSc, MSc, MPhil, DPhil	MSc Education (Higher Education)
4. Department or Institute name	Department of Education
5. Address for correspondence (if different from above)	University of Oxford, 15 Norham Gardens, Oxford OX2 6PY, United Kingdom
6. University (not private) e-mail address and telephone number	Sichen.ren@wolfson.ox.ac.uk
7. Name and status of others taking part in the project (e.g. third year undergraduate; postdoctoral research assistant)	N/A

Project description:	
8. Title of research project	University-industry-government cooperation in the context of poverty alleviation in Shanxi Province, China
9. List of location(s) where project will be conducted	Lvliang, Shanxi, China
10. If your research involves overseas fieldwork or travel and your department requires a travel risk assessment, will you have completed and returned a risk assessment form beforehand? (This must be approved by your department before you travel. If you are travelling overseas, you are strongly advised to take out University travel insurance.) Please also address any physical or psychological risks for Oxford	Yes ☐ No ☐ Not required in this instance ☒

researchers and local fieldworkers in question 16 below and discuss with your Safety Officer.	
11. Anticipated duration of overall research project	6 months
12. Anticipated start and end dates of the part of the research project involving human participants and/or personal data	From: (25/02/21) To: (13/08/2021) (depending on ethics approval) Note: You will need ethics approval before you start your research. CUREC 1As may take up to **30 days** to process. Retrospective ethics approval **cannot** be granted.
In the case of international or collaborative research, will you submit or have you submitted this project for ethical review or consideration elsewhere (e.g. collaborator's/ local ethics committee, or other local approval)?	Yes ☐ N/A No ☐ If 'Yes', please attach ethics or other approvals and give more details below. If 'No', please explain your reasons below. Please also refer to the Best Practice Guidance on Ethical Review of social-sciences based research conducted outside the UK (BPG 16), which includes an Ethics Issues Checklist for International Research (Appendix A)
Please supply further details in response to question 12b here. N/A. This research is not collaborative research.	
13. External organisation funding the research (if applicable)	N/A
14. Brief description of research (about 150 words) in lay language. a) When describing the research, include your methodology, how you are applying professional guidelines, and the use to which results/ data will be put. Please also declare any conflicts of interest here.	
What is the universities' role in poverty alleviation process in Lvliang, China? Universities in China carry out programmes designed to contribute to poverty alleviation. The research focuses on the work of two universities in Lvliang, using the following three perspectives: policy background, policy enactment, and policy assessment. The study focuses on the community engagement of the university, policy interpretation, and the relationship between higher education and development. This study entails interview university students who participated in the programmes, local government officials, university staff members, and local residents (optional).	

Questions to residents will focus on how cooperation with the university changed their life and contributed to development. The different stakeholders may take various perspectives and their different understandings of the relationship can both contribute to a broader understanding and lead to improvement of future practice.
b) Description of participants and how you will obtain informed consent to take part in the research.
i. Description of participants and your criteria for inclusion/ exclusion.
University staff members: 3-5, local officials: 5, university students: 5, local residents: 5 (optional). Participants interviewed must have been involved in at least one poverty reduction activity involving at least one university. The choice of participants is determined by the time length and intensity of involvement, and the number of activities in which potential participant have been engaged.
ii. Your method(s) of recruitment.
University staff members and university students will be invited to participate by email, after having been identified using the official websites of the two universities, which specify contact details and engagement in poverty alleviation activity. Relevant local officials will be contacted by telephone as email is not widely used in the city. Again, these officials will be identified and contacted using official websites. In relation to residents, the researcher will go to the researched region and randomly pick residents, asking them if they are willing to be interviewed and were involved in the poverty alleviation programmes (if the situation permits). Snowball sampling will be used if necessary to ensure there are enough interviewees in each category.

iii. Your processes for obtaining informed consent from participants.	
Each participant will be given a consent form in Chinese, and the researcher will read them through to give participants enough time to consider whether they accept or not. The consent form will include all essential information about the research including the purpose of the study, the interview process and data storage details. Participants will be told that they have a right to withdraw at any time without harm to themselves, and their anonymity will be protected at every stage of the research, writing and publishing processes. If they are willing to join the interview, they will be asked to sign the paper.	
Please attach separate supporting documents (in Word), if appropriate, for your research (English language versions only). Tick those you are submitting below. If appropriate supporting documents are not submitted, you will be asked to provide these separately, which may delay the ethical review process.	
Recruitment and advertisement material (e.g. a poster, social media recruitment text, or brief invitation letter/ email).	☐
Information for participants to read (or hear) before they agree to take part (e.g. written information or, if applicable, an outline oral information script).	☒
A document to record informed consent. Templates for written consent forms and/ or oral information scripts (in case of an oral consent process) are available from the CUREC website.	☒
Questions to be asked of participants (e.g. interview questions, or a preliminary scope of questions, or a sample questionnaire).	☒
(If applicable) debriefing document after participants have taken part.	☐
Please add any further details. If you feel the above approaches are not appropriate for your study, provide details on how you will obtain consent from participants Please answer question 15 if you cannot obtain informed consent.	
N/A	
15. If you cannot obtain informed consent from participants according to CUREC guidelines and good practice in your discipline, please give a brief explanation and justification of this decision below.	
N/A	
16. What are the ethical issues connected with your research and what steps have you taken to address them? Please do not answer 'none'. We need to see that you have identified potential ethical issues with respect to your research and have taken steps to address them. If applicable, please address:	

a) Participant burdens and/or risks
For local residents, since most come from disadvantaged background, asking participants to recall past experience can be potentially traumatic. However, they will have the right to withdraw at any time. For university and governmental officials, it is important to ensure anonymity so that they could express their interpretation of the policy more openly, without danger to their careers.
b) Your own physical and psychological safety as a researcher or of fieldworkers you may employ (see the University's and Social Science Division's Safety in Fieldwork guidance)
During the COVID-19 pandemic, the researcher needs to be careful in all inter-personal interaction and will follow advised procedures.
c) Data protection/ confidentiality (also see Section 18).
During the interview process, the researcher will record using sound recording and also take fieldnotes. All data collected will be encrypted. All participants will be allocated with a unique number and provided with their own coded data for approval, prior to its use in the findings of the study. Any identifiable information will be kept confidential and deleted after the research is finished.
Any other ethical issues. For more guidance on ethical issues, please see http://researchsupport.admin.ox.ac.uk/governance/ethics/resources
N/A

17. Will your research involve discussing sensitive issues? This could be information relating to race or ethnic origin, political opinions, religious beliefs, physical/ mental health, trade union membership, sexual life or criminal activities. If you answered 'Yes', make sure you include some supporting information (as directed in **section 14b** above, showing the range of questions covering these issues.	Yes ☐	No ☒
Please provide further details: N/A		

18. Management and handling of personal and other research data
All information provided by participants is considered research data for the purpose of this form. Any research data from which participants can be identified is known as

personal data; any personal data which is sensitive is considered special category data.

Management of personal data, either directly or via a third party, must comply with the requirements of the General Data Protection Regulation (GDPR) and the Data Protection Act 2018, as set out in the University's Guidance on Data Protection and Research. In answering the questions below, please also consider the points raised in the Data Protection Checklist and whether, for higher-risk data processing, a separate Data Protection Impact Assessment (DPIA) may also be required for the research. Advice on research data management and security is available from Research Data Oxford and your local IT department. Advice on data protection is available from information.compliance@admin.ox.ac.uk.

a) Please mark 'X' against the data you will collect for your research

Consent records (written consent forms, audio-recorded consent, assent forms (for research involving minors) including participant name)	☒
Online consent (may be anonymous)	☒
Opt-out forms	☐
Contact details for research purposes only (destroyed when no longer needed for this research)	☒
Contact details kept for future studies	☐
Audio recordings (preferably using PIN-protected audio recorder and stored on device's hard drive)	☒
Video recordings	☐
Transcript of audio/ video recordings	☒
Photographs	☐
Task results (e.g. paper/ online tasks, diary completion)	☐
Questionnaire answers	☐
Field notes	☒
Other (please specify below)	☐

b) For each of the types of data selected above, state how this will be physically transferred from where it is collected to a local secure storage site (and backed up as necessary). This includes paper records and data captured electronically.

Data will be saved in an encrypted folder. Contact details of informants will be reserved in an encrypted folder and deleted immediately after the research is finished. Transcript and fieldnotes will be saved in one device only and will not be shared with other persons, aside from the research supervisor.
c) How and where will each type of data be stored during the research (until the end of all participant involvement)? Describe the arrangements for ensuring confidentiality, i.e. location of storage (e.g. Nexus 365 OneDrive for Business, SharePoint), security arrangements and de-identification of such data. Do not store unencrypted data in freely available cloud services or unprotected USB drives.
The data will be first reserved in the researcher's computer in an encrypted folder, and then the data will be uploaded to OneDrive to ensure its safety. Then the original data will be processed and any informal discussion that is not relevant to this research will be deleted. The remaining part will be coded and saved in an encrypted external hard drive. In all data attribution real names will not be used – participant quotes will be given an alias.
d) Will you use a unique participant number on research data instead of a participant name? If yes, state whether or not you will retain a list of participant names against numbers (i.e. pseudonymisation via a linkage list). Where will the list be stored, and when will it be destroyed?
Yes, a form containing participant number and name will be created first and reserved in an encrypted file. The list then will be a reference during the analysis process, and finally it will be deleted immediately after the research is done.
e) Who will have access to the research data?
Only the researcher and supervisor will have access to the research data.
f) If research data is to be shared with another organisation, how will it be transferred/ disclosed securely?
N/A
g) When and how will identifiable data (including audio/ video recordings & photos) be destroyed or deleted? Note: Records of consent should be retained for a minimum of three years after publication or public release. Some funders may require longer periods. If you wish to retain contact details in order to re-approach participants about future studies, you must detail this in information provided to them and obtain specific consent for this.

Any identifiable data like participants' personal information will be destroyed not long after the study is finished, in October 2021. Nonidentifiable data such as transcript, and processed fieldnotes, will be kept for three years till August 2024.		
h) Please confirm that you will store other research data safely for at least 3 years after final publication or public release and adhere to any additional research funder policies. For more information about the University policies, please see the University's web pages on research data management.	Yes ☒	No ☐
If 'Yes', please give details of who will store the data and on storage format, location and security. Note that open science is encouraged. If 'No', please provide further details below.		
Please refer to section b) and c)		
i) Does your research involve the use of secondary (i.e. previously collected) data? Common sources of secondary data include censuses, information collected by government departments, organisational records and data that was originally collected for other research purposes. (If "No", please go to question 19.)	Yes ☒	No ☐
j) Do you have data access agreements for the use of this secondary data? (If so, please attach these.)	Yes ☒	No ☐
k) Is your use of this secondary data compatible with what the data subjects/ participants agreed that their data should be used for?	Yes ☒	No ☐
l) Could this data be linked back to an individual or individuals? If yes, address how securely any personally identifiable data will be transferred to you, and where and for how long it will be stored during or after the research. Who will have access to it?	Yes ☐	No ☒

19. Publication and dissemination of research data and outputs. How will you disseminate and feedback project outcomes at the end of the research?

SECTION D: Professional guidelines and training
All details of the research process and the findings, discussion and conclusion will be summarised in the dissertation. As noted in 16 (c), encoded data and analysis will be shown to participants to secure their approval prior to the data being used in the dissertation. Any potential risk mentioned by participants will be discussed with them in detail. Participants will have a right of access to the final dissertation.

SECTION C: Methods and procedures to be used	
1. Please indicate the methods to be used:	**Mark 'X'**
a) Analysis of existing records	☒
b) Snowball sampling (recruiting through contacts of existing participants)	☒
c) Use of casual or local workers e.g. interpreters	☐
d) Participant observation	☐
e) Covert observation	☐
f) Observation of specific organisational practices	☐
g) Participant completes questionnaire in hard copy	☐
h) Participant completes online questionnaire or other online task	☒
i) Using social media	☐
j) Participant performs paper and pencil task	☐
k) Participant performs verbal or aural task (e.g. for linguistic study)	☐
l) Focus group	☐
m) Interview	☒
n) Audio recording of participant (you will generally need specific consent from participants for this)	☒
o) Video recording of participant (you will generally need specific consent from participants for this)	☐
p) Photography of participant (you will generally need specific consent from participants for this)	☐
q) Others (please specify below)	☐
Please ensure you have addressed any potential ethical issues related to these methods in question B14 and in your Participant Information Sheet.	

In this section, please mark 'X' against at least one of the following professional guidelines you aim to adhere to. You should use the principles listed in your chosen guideline(s) in conducting your own research. This is not an exhaustive list.		
Research specialism/ methodology	**Association and guidance document**	**Please mark 'X'**
Anthropology	Association of Social Anthropologists of the UK and Commonwealth	☐
Computer Sciences	ACM Code of Ethics and Professional Conduct	☐
Criminology	British Society of Criminology	☐
Education	British Educational Research Association Ethical Guidelines for Educational Research	☒
Geography	Association of American Geographers Statement on Professional Ethics	☐
History	Oral History Society of the UK Ethical Guidelines	☐
Internet-based Research	British Psychological Society: Conducting Research on the Internet Association of Internet Researchers Ethics Guide ACM Code of Ethics and Professional Conduct Association of Internet Researchers (AoIR) Also see CUREC's Best Practice Guidance on internet-based research	☐
Law (Socio-Legal)	Socio-Legal Studies Association: Statement of Principles of Ethical Research	☐
Management	Academy of Management's Professional Code of Ethics	☐
Political Science	American Political Science Association (APSA) Guide to Professional Ethics in Political Science	☐
Politics	Political Studies Association. Guidelines for Good Professional Conduct	☐
Psychology	British Psychological Society Code of Ethics and Conduct	☐
Social Research	Social Research Association: Ethical Guidelines	☐
Sociology	The British Sociological Association: Statement of Ethical Practice	☐
Visual Research	ESRC National Centre for Research Methods Review Paper: Visual Ethics: Ethical Issues in Visual Research	☐
Other professional guidelines. Please specify the other guidelines used here:		☐
Please indicate what training in research ethics (or research methodology) the researchers involved with this study have received, e.g. the title of the course and date completed (online training available at http://researchsupport.admin.ox.ac.uk/support/training/ethics), or discussions between researchers and supervisors, if applicable.		

I am enrolled in the MSc Higher Education and take courses including Foundation of Education Research I and II. At Oxford, we receive rigorous ethic training and engaged in in-depth discussion with our supervisors about ethical issues.

SECTION E: Signatures or email endorsements

The SSH IDREC Secretariat accepts either option below. If you have a DREC, check which option it prefers.

Option 1: Email confirmation from a University of Oxford email address can be accepted. Separate emails should come from each of the relevant signatories as outlined below, indicating acceptance of the relevant responsibilities. Pasted images of signatures cannot be accepted.

Option 2: Handwritten signatures. Please scan them and the rest of the checklist pages to create a single PDF document and email to us.

Please ensure this checklist is signed by:

For staff research:

1. Principal Investigator
2. Head of Department (or nominee)

For student research:

1. Principal Investigator (project supervisor)
2. Head of Department (or nominee)
3. Student researcher

Principal Investigator signature/ supervisor signature (if student research)

I understand my responsibilities as Principal Investigator as outlined in the CUREC glossary and guidance on the CUREC website. I declare that the answers above accurately describe the research as presently designed, and that a new checklist will be submitted should the research design change in a way which would alter any of the above responses so as to require completion of CUREC 2 (involving full scrutiny by an IDREC). I will inform the relevant IDREC if I cease to be the principal investigator on this project and supply the name and contact details of my successor if appropriate.

Signature (or email endorsement using the above declaration):

_____

Print name: _____ **Date**:

_____

Departmental endorsement signature

I have read the research project application named above. On the basis of the information available to me, I:

- consider the PI and student researcher (if applicable) to be aware of their ethical responsibilities in regard to the ethical issues associated with this research;
- am satisfied that: the proposed project design and scientific methodology are sound; the project has been subject to appropriate peer review; and is likely to contribute to existing knowledge and/or to the education and training of the researcher(s) and that it is in the public interest.

Signed by Head of Department or nominee (example nominees for student research include the Director of Graduate Studies/ Director of Undergraduate Studies):

Signature (or email endorsement using the above declaration):

_____

Print name: _____ **Date**:

_____

Student signature (if student research)

I understand the questions and answers that have been entered above describing the research, and I will ensure that my practice in this research complies with these answers, subject to any modifications made by the principal investigator properly authorised by the CUREC system.

Sichen Ren

Signature by student (or email endorsement using the above declaration):

_____

Sichen Ren 6th May

Print name: _____ **Date**:

_____

Appendix C

Participant information form

UNIVERSITY OF OXFORD
DEPARTMENT OF EDUCATION

15 Norham Gardens, Oxford OX2 6PY
Tel: +44(0)1865 274024 Fax: +44(0)1865 274027
general.enquiries@education.ox.ac.uk www.education.ox.ac.uk

Project Supervisor Professor Simon Marginson



University-industry-government cooperation in the context of poverty alleviation in Shanxi Province, China
Information for Participants

Invitation
You are being invited to take part in a research study. Before you decide to participate, please take time to read the following information carefully. Please ask if there are any aspects of the project that are unclear or if you would like more information.

Why is this research being conducted?
This research is based on Lvliang, Shanxi province in central China. It aims at exploring the implementation of poverty alleviation policy and university's role in Lvliang. It plans to delve into three perspectives: policy background, policy enactment, and policy assessment. To deeply understand these aspects, this study requires participants to share their opinions and experiences under the poverty alleviation policy. After interviews, this study aims to do an analysis based on data collected from four groups of stakeholders: government officials, university staff members, university students and local residents. Then this study will present a general assessment of this policy reflecting on the community engagement of HEIs, policy interpretation, and HE-Development relationship. The study will lead to a better understanding of the policy and your experiences will help in developing an improved policy.

Why have I been invited to take part? Do I have to take part?
This study will include about 15 participants with all participants aged more than 18. As mentioned previously, we want to hear your understanding of the policy and comments on the university's aid in Lvliang. We choose you as part of the sample for this study as you have been identified as belonging to one of the four groups of interviewees named previously. Your personal experience and understanding will contribute to this study and help at the final stage in the assessment of the policy.

You do not have to take part. You can ask questions about the research before deciding whether or not to take part. If you do agree to take part, you may later withdraw yourself from the study, without giving a reason and without negative consequences, by advising me of this decision. The deadline by which you can withdraw any information you have contributed to the research is 13th August.

What will happen to me if I take part in the research?
You will be invited to attend an interview at Lvliang, Shanxi province. When the interview starts, I will talk you through the study procedures and give you the chance to ask any questions. If you are still happy to take part, I will ask you to sign a consent form. If you are happy to take part in the research, you will be interviewed. The interview should take approximately 30-60 minutes. You can also ask to pause or stop the interview at any time. With your consent, I would like to audio record you because then I can have an accurate

record of your thoughts, which will be convenient to my transcription and data analysis.

What are the risks and benefits of taking part?
If you are local resident or university students, asking you to recall past experience can be potentially traumatic. If you are a member of university staff or a governmental official, you may feel there are dangers to your career. For this reason, we will fully ensure your anonymity at every stage of the research. Anonymity is a strict principle of Oxford research. This will allow you to express your interpretation of the policy freely and openly. There will be no direct or personal benefit to you from taking part in this research, but your contribution might help to improve the policy making and implementation process.

What will happen to the results of this research?
The results of this research will form the basis of an Oxford master's dissertation. If you wish to obtain a copy of the published results, please inform the researcher.

Contact for Further Information or Follow-up
Should you have any further questions about this research, please feel free to contact:
_Sichen Ren, Department of Education, 15 Norham Gardens, Oxford, UK OX2 6PY.
sichen.ren@wolfson.ox.ac.uk. Your inquiries are most welcome.

Appendix D

Research Consent form

UNIVERSITY OF OXFORD
DEPARTMENT OF EDUCATION
15 Norham Gardens, Oxford OX2 6PY
Tel: +44(0)1865 274024 Fax: +44(0)1865 274027
general.enquiries@education.ox.ac.uk www.education.ox.ac.uk

Project Supervisor Professor Simon Marginson

Research Consent Form

Project Title: University-industry-government cooperation in the context of poverty alleviation in Shanxi Province, China
Researcher: Sichen Ren (MSc Education – Higher Education)

Declaration of Consent:

I have read the participant information sheet and have had the opportunity to ask questions about the study and receive satisfactory answers to questions.

I understand that I may withdraw from the study without penalty at any time by advising the researchers, and
any data already recorded will be discarded

I understand that this project has been reviewed by, and received ethics clearance through, the University of Oxford's Central University Research Ethics Committee

I understand that my personal data will be treated in total confidence, kept securely in a password-controlled server; and what will happen to the data at the end of the project

I understand that I will have the opportunity to review and comment on any analysis before publication. I understand how to raise a concern and make a complaint, and agree to participate in this study.

□ I agree to voluntarily take part in this interview.

□ I confirm that I have read the associated information sheet and understand the intent and purpose of this research.

□ I agree that data captured by this research can be shared among the research team on this project.

Name of Participant:_____ Email:_____

Signature:__ Date: _____

Name of Researcher_____ Signature and Date: __

Appendix E

Online Research Template

UNIVERSITY OF OXFORD
DEPARTMENT OF EDUCATION

15 Norham Gardens, Oxford OX2 6PY
Tel: +44(0)1865 274024 Fax: +44(0)1865 274027
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University-industry-government cooperation in the context of poverty alleviation in Shanxi Province, China
CUREC Approval Reference:

General Information

This study aims at exploring the implementation of poverty alleviation policy and university's role in Lvliang. It plans to delve into three perspectives: policy background, policy enactment, and policy assessment. To deeply understand these aspects, this study requires participants to share their opinions and experiences under the poverty alleviation policy.

We appreciate your interest in participating in this online interview. You have been invited to participate because you are current or previous practitioners in the poverty alleviation policy. Please read through this information before agreeing to participate (if you wish to) by ticking the 'yes' box below.

You may ask any questions before deciding to take part by contacting the researcher (details below).

The Principal Researcher is Sichen Ren, who is attached to the Department of Education at the University of Oxford. This project is being completed under the supervision of Simon Marginson.

What will happen to me if I take part in the study?

In this research, we will conduct online interview which should take about 60 minutes. As mentioned previously, we want to hear your understanding of the policy and comments on the university's aid in Lvliang. Voices from different stakeholders could greatly contribute to the improvement of the university's performance in practicing their social responsibility and achieving sustainable development goals. No background knowledge is required. Only Prof. Simon Marginson and I can access these data.

If you agree to talk about your experience in this way, you will be invited to interview on an online platform e.g. Microsoft Teams, Zoom, Tencent Meeting or WeChat. I understand that in China, some platform can have bad network connection and you may choose the platform that works for you. You can also ask to pause or stop at any time. With your consent, there will be audio recording during the interview.

Do I have to take part?

No. Please note that participation is voluntary. If you do decide to take part, you may withdraw at any point for any reason before submitting your answers by pressing the 'Exit' button/ closing the browser. We have included a 'Prefer not to say' option for each set of questions should you prefer not to answer a particular question.

How will my data be used?

The data [e.g. contact details, age, gender, family annual income, parents' occupations, audio/video recording] we will collect that could identify you will be anonymised or pseudonymised.

Your IP address will be stored. We will take all reasonable measures to ensure that data remain confidential. The responses you provide will be stored in a password-protected electronic file and may be used in academic publications. Identifiable information will be deleted as soon as it is no longer required for the research. Research data (including consent records) will be stored for three years after publication or public release.

Providing that you agree in the optional section of the participant consent form, the personal data that we collect from you may be transferred to, stored and/ or processed at a destination outside the UK and the European Economic Area ("EEA"). Any data that leave the research group will be completely anonymised so that you cannot be personally identified in any way.

Who will have access to my data?

The research will be used for a master's degree dissertation. The data you provide may be shared with Sichen Ren and supervisor Prof. Simon Marginson.

We would also like your permission to use the data in future studies, and to share data with other researchers (e.g. in online databases). As mentioned above, data will be de-identified before it is shared with other researchers or results are made public.

Further information about your rights with respect to your personal data is available from http://www.admin.ox.ac.uk/councilsec/compliance/gdpr/individualrights/.

Who has reviewed this study?

This project has been reviewed by, and received ethics clearance through, the University of Oxford Central University Research Ethics Committee.

Who do I contact if I have a concern or I wish to complain?

If you have a concern about any aspect of this study, please speak to Sichen Ren with sichen.ren@wolfson.ox.ac.uk or their supervisor Simon Marginson with simon.marginson@education.ox.ac.uk, and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

Social Sciences & Humanities Interdivisional Research Ethics Committee; Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD **OR**

Education Departmental Research Ethics Committee (DREC) Email: student.curec@education.ox.ac.uk

Please note that you may only participate in this survey if you are 18 years of age or over.

☐ I certify that I am 18 years of age or over

If you have read the information above and agree to participate with the understanding that the data (including any personal data) you submit will be processed accordingly, please check the relevant box below to get started.

☐ Yes, I agree to take part

Declaration by the candidate as author of the dissertation

1. I understand that I am the owner of this dissertation and that the copyright rests with me unless I specifically transfer it to another person.
2. I understand that the Department requires that I shall deposit one copy of my dissertation in the Oxford University Research Archive ('ORA') where it shall be freely available online for use in accordance with ORA's Terms and Conditions of Use [https://ora.ox.ac.uk/terms_of_use].
3. I understand that this dissertation should not contain material that can be used to personally identify individuals or specific groups of individuals, and that such material should be removed before this dissertation is deposited in ORA.
4. I agree to be bound by the terms of the ORA Grant of Non-exclusive Licence [www.bodleian.ox.ac.uk/ora/deposit-in-ora/deposit-licence] and I warrant that to the best of my knowledge, making my thesis available on the internet will not infringe copyright or any other rights of any other person or party, nor contain defamatory material.
5. I agree that my dissertation shall be available for download in ORA in accordance with paragraphs 2, 3 and 4 above.

Signed [an electronic signature is sufficient]: SICHEN REN
Date: 27/08/2021