

# An empirical study on the cognitive attitude of rural children using mobile phones (based on the example of children from rural areas in Northern Suzhou)

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## Abstract

The small-screen era has created a new life scene for China's 'Internet generation'. With the increase in mobile phone penetration among rural children, entertainment has become the biggest goal of rural children using mobile phones. The mobile phone usage of rural children is mostly concentrated on short videos, WeChat and other information apps. The method of direct prohibition adopted by parents and school is not effective in correcting the child's attitude towards using the phone. The simple living environment of rural children and the left-behind phenomenon leads to the lack of parental supervision. Systematic analysis of rural children's attitude towards the use of mobile phones and finding factors affecting their use of mobile phones can effectively guide them to obtain knowledge and achieve anti-sinking purpose. Based on the ABC attitude model combined with face-to-face interviews, this paper firstly determines the influencing variables and designs the questionnaire for collecting the data in the rural schools. With fitting of structural equation model, the attitude model affecting rural children's use of mobile phones is established. The factors influencing rural children's mobile phone use are analyzed to improve the essential understanding of the problem.

## Keywords

Rural children, left-behind children, mobile phone use, attitude model.

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## Introduction

### Background

There are three types of children in rural China: migrant children (following migrant workers in cities), non-left-behind children, and left-behind children. Left-behind children account for a large proportion of rural children in the current transition period of the Chinese economy. Left-behind children refer to children with one or both parents out for work and are attended to by their grandparents or other relatives. Compared with the situation of being left-behind right after birth, in recent years, the proportion of left-behind children who return to their hometowns from their parents' working place has increased due to the education regulation (Chinese education policy states that after 9 years of compulsory education, students need to return to registered residence to continue higher education). According to the accurate statistics (*XinhuaNet*, 2018), the number of left-behind children in the country in 2018 was 6.97 million. The '2018 White Paper on the mental status of left-behind children in China' pointed out that among the 3,451 left-behind children in the survey sample, 40% met with their parents no more than 2 times, and 20% of the children met with their parents no more than four times. The interaction between rural children and the media has formed an important part of their contact with the world. The positive and negative effects brought about by the massive information in mobile phones have become the topic of in-depth research in the communication field. Parental companionship, school guidance and other factors influence rural children's perception and consumption behavior of mobile media. The most commonly used function of mobile phone for rural children is entertainment. Parents and teachers often use isolation method to reduce the contact between children and mobile phones. In the process of mobile phone media exposure, rural children are not able to correctly recognize the 'anesthetic effect'. Rural children's use of mobile phones, cognitive attitudes and how parents and schools should interpret the role of mobile media in the growth of rural children are the main subjects of this article.

### Review of current research

In the current research, left-behind children in rural children are socially topical due to intergenerational supervision and the gradual increase in crime rates. Most of the literature focuses on the study of left-behind children, while taking non-left-behind children in the same living environment as comparative objects. Research mainly focus on mental state, crime rate, and factors affecting growth.

Taking CNKI as an example, the literature with key words of ‘village’, ‘left-behind children’, ‘media’ and ‘mobile phone’ focuses on the influence of media on the socialization of left-behind children, the use of media by rural children, emotional supply of media to left-behind children and media violence on left-behind children. Individuals form the coherent personality through the process of socialization (Robert, 1986). Xiangchen Wang believes that in terms of socialization, the process that occurs during the childhood has a vital impact on children’s formation of value system, role perception, and externalized role behaviors, which are the key factors in the children’s growth and development. Left-behind children must face the long-distance nature of parent-child interactions for long periods. The wrong orientation of value system during this period will be difficult for timely and effective correction. Therefore, in the socialization of left-behind children, neither the ‘basic effect’ nor the ‘corrective effect’ of family can be effectively exerted (Xiangchen, 2017). Haining Dong’s research conclusions show that within the range of empirical indicators involved in the social study of left-behind children, the socializations of left-behind children and non-left-behind children show great disparity, and there are far more differences than consistencies. The differences are mainly reflected in the relatively worse socialization of left-behind children. This means that the negative impact of lack of parental supervision on the socialization of children is real (Chuanxin, 2013).

According to the survey, rural schools mostly adopt the collective residence system. Almost every parent provides a mobile phone to the children for convenient contact. Contrary to that, both schools and parents oppose children’s use of mobile phones for other purposes. Nonetheless, the new media rural children are exposed to can actually help them to understand the world and promote their transformation to ‘social people’. Moreover, the use of mobile phones, tablets, and computers can diversify the way to acquire information and the channels of friend-making (Wei, 2017). The problem of using mobile phones imparting more harm than good to is due to the low media literacy of rural children. Most of their purposes are focused on entertainment, without proper guidance to enable them to identify received information and realize the ‘anesthetic effect’. The parents mostly focus on farming and working outside the home, and rarely give correct supervision of children’s contact with the media, resulting in rural children’s overuse of leisure function and overexposure to the entertainment media information. According to the 42nd Statistical Report on China’s Internet Development Status released by China Internet Network Information Center (CNNIC), as of June 2018, the overall Internet penetration

rate of minors in China was as high as 98.1%, and 57.1% of minors were online. Their purposes are mainly entertainments such as short video, chat dating, gossip news, online games, etc. (Rui, 2019). Rui Zhang believes although the social media like short videos allows them to entertain and relax, some vulgar contents have subtly changed their cognition and behavior patterns. In return, the children who are acculturated by the vulgar contents have continued to 'reverse acculturate' short video media, forming a vicious circle of 'bad money driving out good' in the recommended contents.

Current research mostly focuses on the role of the social media in the process of socialization of rural children and the influence of the social media on them. There are few studies based on the inner aspects of rural children and exploring their cognition and other psychological factors affecting their use of mobile phones. Rural children in the period of rebelliousness have delicate emotions and lack of communication and understanding from outside world. The emergence of mobile phones has opened another door to the world for them. Finding the attitude of rural teenagers using mobile phones and therefore remedying the case can reduce the phenomenon of 'entertainment to death' in rural teenagers addicted to mobile phones. Then the advantage of diversified information in mobile phones can be truly integrated into the life of rural teenagers. The purpose of this paper is to measure the attitude of rural children in controlling using mobile phones, the intention of left-behind children to use mobile phones and media, and to find out the emotional impact of using mobile phones on left-behind children. It proposes suggestions on how parents and schools should correctly guide rural children to use mobile phones in a healthy way.

## Methods

The development of society has created a special environment for rural children. The influence of the social media is based on communication and dialogue with rural children. Dialectics believes that the internal cause is the basis of change. The external cause is the condition of change and acts through the internal cause. In order to exert the positive influence of the social media on rural children, it is necessary to start from the self-attitude of rural children and understand their awareness of cognition, emotion and self-control in using mobile phones.

Attitude is an internal state of human beings, acquired through the surrounding environment, accumulated knowledge and built-up emotions of life. The attitude of rural teenagers using mobile phones largely determines their behavior of controlling mobile phone use. Fishbein & Ajzen (1975) put forward the theory of rational action. The theory holds that attitude is the latent cause of

behavior. By studying attitude, we can investigate people's behavior indirectly. The best way to predict whether people take certain behaviors is to understand their behavioral intentions. There are two factors that affect the intention of behavior: one is the attitude towards the behavior, the like or dislike, the approval or the opposition; the other is the subjective standard, the perceived social pressure of conducting certain behavior (Rongjian, 2004).

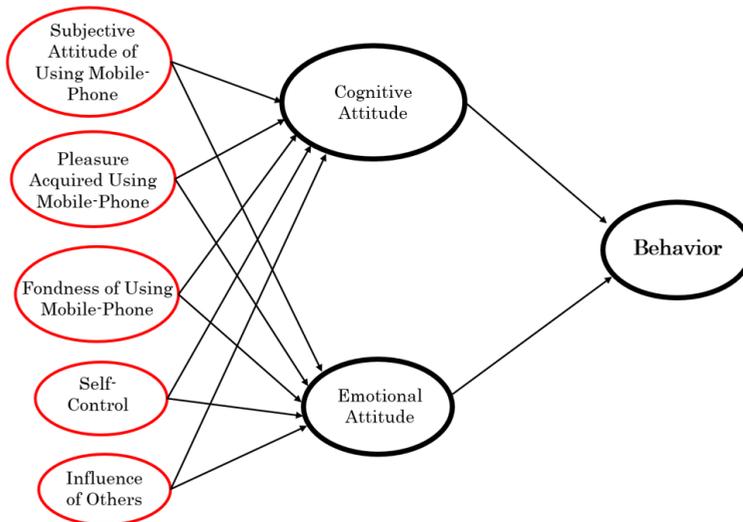
Hawkins et al. pointed out that attitude is the long-term cognitive evaluation, emotional feeling and behavioral tendency of the individual regarding certain things or ideas. That is, attitude is a combination of cognitive components, emotional components and behavioral components. (Sears, 1991). This definition reveals the importance of the three components of cognition, emotion and behavior to the attitude, and reflects the three states that complement each other. It is therefore called the ABC attitude model (Yangchen, 2018).

Based on the above theories, the authors begin with revealing the attitude of rural children controlling mobile phones. Mobile phones and rural children form a subject-object relationship. In the practice of traditional TV programs, the standard requires the content of radio and television to meet the broad aesthetic needs of the audience, which fundamentally determines the content and form of radio and television (Yangchen, 2018). On the other hand, rural children's dependence on mobile phones is based on the communication and interaction with media information in mobile phones. Rural children's attitude towards the use of mobile phones includes two dimensions: one is positioning of whether the self should control using mobile phones, and the other is the acquired experience of mobile media. The ABC attitude model considers that cognition is the subject's possessed understanding of the object. Emotion is the subject's accumulated perception of the object. Behavior is the action the subject ultimately adopts on the object. To explore the attitude of rural children to the use of mobile phones, it is necessary to have an in-depth understanding of rural children's self-control of mobile phones and the awareness and emotions of mobile media. Both of them affect the control of rural children's use of mobile phones.

In order to ensure the accuracy and diversity of the influencing variables, the author conducted in-depth interviews with 30 rural children from the three rural middle schools, namely Yangzhuang Middle School (Yuqiao District), Suzhou Cit, Shaoyu Town Middle School (Daishan County), and Siyuan Middle School (Xiao County). The interviewees were randomly picked and diversified in academic performance. According to their feedback, they are interested in using mobile phones and at the same time have obvious awareness of controlling using phones. Based on the theory of rational action, the author conducted interviews based on

students' attitudes towards their behavior of using mobile phones, the joy in the using and the obtained satisfaction. In the interviews, the children repeatedly mentioned that the factors influencing their mobile phone use behaviors were the following: the subjective control, the pleasure of mobile phones, the degree of use, the behavior of self-control, and the influence of others. Based on the ABC model and the interview, the authors use the keywords as the influencing variables, the cognitive attitude and emotional attitude as the intermediate variables that ultimately influence the behavior. The model is shown in *Figure 1*.

*Figure 1*



Based on ABC attitude model, hypotheses H1 and H2 are proposed:

H1: The cognitive attitude negatively influences the behavior.

H2: The emotional attitude positively influences the behavior.

Based on the interview, the authors propose the following hypothesis describing how the influencing variables affects the intermediate variables:

H3: The subjective attitude of using phones positively influences the cognitive attitude.

H4: The subjective attitude of using phones negatively influences the emotional attitude.

H5: The pleasure acquired using phones negatively influences the cognitive attitude.

H6: The pleasure acquired using phones positively influences the emotional attitude.

H7: The fondness of using phones negatively influences the cognitive attitude.

H8: The fondness of using phones positively influences the emotional attitude.

H9: The self-control positively influences the cognitive attitude.

H10: The self-control negatively influences the emotional attitude.

H11: The influence of others positively influences the cognitive attitude.

H12: The influence of others negatively influences the emotional attitude.

Based on Rongjian Mao's 'Initial scale for exercise attitude' (Rongjian, 2004), a questionnaire with five-point Likert scale is designed combining the designed variable factors in the interview and the related attitude theory. The questionnaire is divided into three parts: the demographic questionnaire, the sample screening questionnaire and the questionnaire to measure the related variables.

The subjects of this paper are middle school students from districts, counties and towns in Suzhou City, Anhui Province. There are numerous migrant workers in Anhui, and its rural population accounts for 45.31% of the total population. According to the latest big data, the number of left-behind children in Anhui Province is 736,000, accounting for 10.6% of the total number of left-behind children in the country, ranking second in the country. Located in the north of Anhui, Suzhou is dominated by plain landforms and densely populated. Land cultivation is insufficient to meet the economic requirements of the rural population, forcing young and middle-aged people to go out to work to improve their living conditions. The number of rural children in Suzhou is huge and representative. In order to diversify the results of the questionnaire, the author selects three middle schools in different regions, and the students in the first, second and third grades are randomly selected through questionnaires. Using on-the-spot distribution, on-site answering, a total of 700 questionnaires were distributed and 547 were collected as effective questionnaires. The effective recovery rate of samples was 78.1%.

## Results

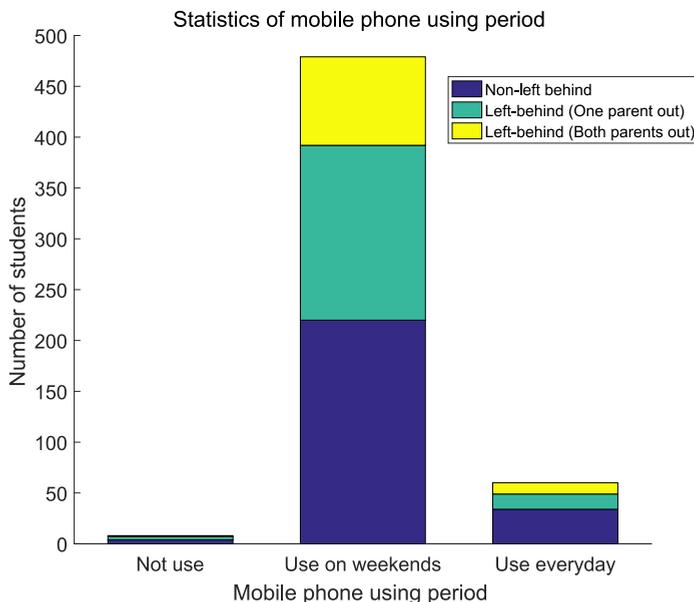
The total number of valid questionnaires was 547 (male 222, female 325), of which 258 were non-left-behind children (male 100, female 158) and 289 left-behind children (male 122, female 167). The proportion of female students is higher than that of male students. Among the 289 left-behind children, 99 children are taken care of by grandparents or other relatives with both parents out for work and 190 children have one parent by side (*Table 1*).

Table 1

Category	Male	Female	Total
Non-left-behind	100	158	258
Left-behind (one parent out)	45	54	99
Left-behind (both parents out)	77	113	190
Total	222	325	547

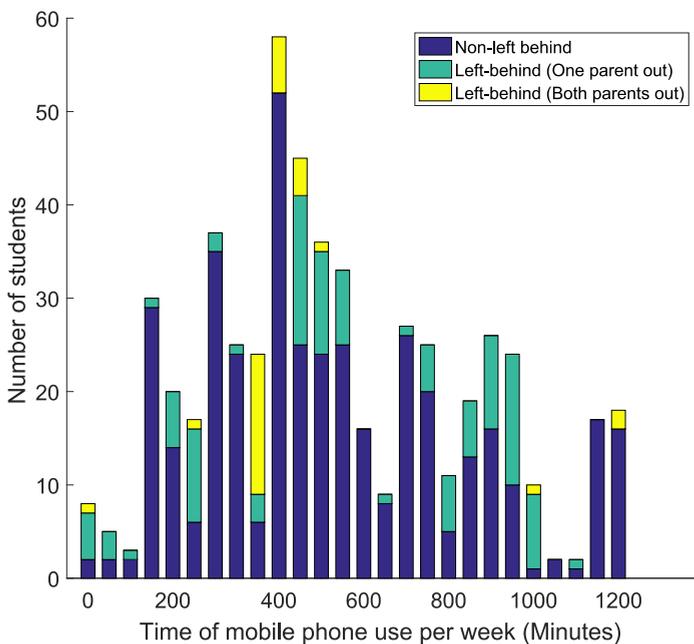
The investigated students mostly live in the school due to the inconvenient transportation in the area. During school hours, the school confiscates the phones and students cannot use their phones on weekdays. In the weekend, the school returns the phones, resulting in the concentration of phone-using time on Saturday and Sunday. Out of 547 people, 479 of them use phones during the weekend and 60 of them use phones every day. 8 people said they do not use phones other than making calls. In order to ensure the reliability of the data, the authors learned that they were taken care of by their grandparents and are not provided with phones by their parents. The ‘elder phones’ used by grandparents only have functions to make calls and send messages. They are mainly in contact with traditional media in daily life, but they are exposed to online media through public places such as Internet cafes.

Figure 2



The maximum time for mobile phone use in the tested rural children during the weekend is 1,245 minutes, with a minimum of 0 and an average of 305 minutes per person per weekend. Among them, the highest value of mobile phones used by 289 left-behind children is 1245, the lowest value is 0, and the average value is 328 minutes. The maximum value of mobile phones for non-left-behind children on weekends is 1020 minutes and the lowest is 0. Left-behind children use the mobile phone market for two days on weekends, which is slightly higher than that of non-left-behind children. The detailed time is plotted in *Figure 3*.

*Figure 3*



According to the commonly used mobile phone app, the author initially lists ten app options: 1. QQ 2. WeChat 3. Tencent video 4. Iqiyi 5. Tik Tok 6. Kuaishou video 7. Huoshan video 8. Weibo 9. Bilibili 10: Others (with blanks to fill). The result shows that the frequency of playing games and reading novels is high in option 10.

Table 2

Frequency order	App name
1	QQ
2	Wechat
3	Kuaishou
4	Tik Tok
5	Tencent video
6	Iqiyi
7	Others (novels, games)
8	Weibo
9	Bilibili
10	Huoshao video

QQ is the most popular app for rural children. Through QQ they can chat, express their mood, and find group companions. QQ has become the first way for rural children to entertain and express their mood.

The commonly used reliability test is based on the Cronbach's alpha value. The alpha value greater than or equal to 0.7 indicates that the reliability of the scale is acceptable. The author uses SPSS 23.0 as the tool to separately measure the five influencing: subjective attitude of using mobile phones (SAUMP), pleasure acquired using mobile phones (PAUMP), fondness of using mobile phones (FUMP), self-control and influence of others. The alpha values are 0.717, 0.740, 0.725, 0.712, and 0.707, respectively. The intermediate variables, attitude of controlling using phones (cognitive attitude) and emotional attitude, are affected by the five influencing variables, with alpha values of 0.778 and 0.740. The total reliability of the scale was 0.742. The result variable (behavior) has alpha value of 0.712. All the alpha values are greater than the recommended value of 0.7, indicating good reliability of the scale.

Table 3

Variables and questions		Corrected item-total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
Subjective attitude of using mobile phones	SAUMP1	0.573	0.657	0.740
	SAUMP2	0.525	0.686	
	SAUMP3	0.45	0.726	
	SAUMP4	0.585	0.65	
Pleasure acquired using mobile phones	PAUMP1	0.544	0.631	0.717
	PAUMP2	0.516	0.648	
	PAUMP3	0.466	0.678	
	PAUMP4	0.492	0.662	
Fondness of using mobile phones	FUMP1	0.563	0.634	0.725
	FUMP2	0.632	0.591	
	FUMP3	0.364	0.751	
	FUMP4	0.516	0.665	
Self-control	SC1	0.511	0.642	0.712
	SC2	0.518	0.638	
	SC3	0.487	0.656	
	SC4	0.478	0.661	
Influence of others	IO1	0.55	0.671	0.707
	IO2	0.632	0.572	
	IO3	0.515	0.713	
Cognitive attitude	CA1	0.531	0.763	0.778
	CA2	0.674	0.675	
	CA3	0.581	0.731	
	CA4	0.577	0.728	
Emotional attitude	EA1	0.550	0.671	0.740
	EA2	0.632	0.572	
	EA3	0.515	0.713	
Behavior	B1	0.562	0.649	0.736
	B2	0.541	0.674	
	B3	0.582	0.625	

The variables of the theoretical model are related and interact with each other, which makes them suitable for structural analysis (SEM) analysis. The corresponding structural equation model (SEM) in Figure 1 is built and fitted in AMOS 22. The fitting indices indicate the degree of good fitting. Here we choose  $\chi^2/\text{df}$ , RMR, RMSEA, GFI, CFI, IFI as the fitting indices. The obtained values and the recommended ones are listed in Table 4.

Table 4

Fitting index	$\chi^2$	df	$\chi^2/\text{df}$	RMR	RMSEA	GFI	CFI	IFI
Value	766.2	356	2.15	0.080	0.046	0.909	0.919	0.920
Recommended			<5	<0.09	<0.05	>0.9	>0.9	>0.9

All the fitting indices meet the requirement, which indicates an overall good fitting of the model. Next step is to test the convergent validity. For each variable the composite reliability (CR) should be greater than 0.7 and average variance extracted (AVE) greater than 0.5. The result is listed in Table 5.

Table 5

Variables and questions		Factor loading	Composite reliability (CR)	Average variance extracted (AVE)
Subjective attitude of using mobile phones	SAUMP1	0.72	0.815	0.526
	SAUMP2	0.68		
	SAUMP3	0.67		
	SAUMP4	0.82		
Pleasure acquired using mobile phones	PAUMP1	0.76	0.830	0.553
	PAUMP2	0.78		
	PAUMP3	0.62		
	PAUMP4	0.80		
Fondness of using mobile phones	FUMP1	0.72	0.815	0.527
	FUMP2	0.63		
	FUMP3	0.71		
	FUMP4	0.83		
Self-control	SC1	0.68	0.823	0.538
	SC2	0.73		
	SC3	0.71		
	SC4	0.81		
Influence of others	IOO1	0.75	0.810	0.517
	IOO2	0.75		
	IOO3	0.64		
	CA1	0.73		
Cognitive attitude	CA2	0.65	0.786	0.552
	CA3	0.80		
	CA4	0.77		
Emotional attitude	EA1	0.74	0.767	0.527
	EA2	0.82		
	EA3	0.60		
Behavior	B1	0.69	0.751	0.504
	B2	0.63		
	B3	0.80		

All the variables meet the requirement of CR and AVE, indicating good convergent validity, which means that the questions used to measure the variables can well cover the content while having little crosstalk with each other.

With the confirmation of good validity, the hypotheses can be tested. The path coefficients and P values of each hypothesis are listed in Table 6.

Table

Hypotheses		Standardized path coefficient	P value	Result
H1	Behavior ← Cognitive attitude	-0.115	**	Supported
H2	Behavior ← Emotional attitude	0.884	***	Supported
H3	Cognitive attitude ← SAUMP	0.024	0.748	Not supported
H4	Emotional attitude ← SAUMP	0.227	***	Supported
H5	Cognitive attitude ← PAUMP	-0.266	**	Supported
H6	Emotional attitude ← PAUMP	0.334	***	Supported
H7	Cognitive attitude ← FUMP	-0.223	**	Supported
H8	Emotional attitude ← FUMP	0.502	***	Supported
H9	Cognitive attitude ← Self-control	0.244	***	Supported
H10	Emotional attitude ← Self-control	-0.059	0.298	Not supported
H11	Cognitive attitude ← Influence of others	0.168	**	Supported
H12	Emotional attitude ← Influence of others	0.093	0.104	Not supported

\*\*\*  $P < 0.01$ , \*\*  $P < 0.05$

Most of the hypotheses are supported by the result, the cognitive attitude has negative influence on the behavior, but with a minor weight of -0.115. The emotional attitude has a strong positive influence on the behavior with a weight of 0.884. Both H1 and H2 are supported.

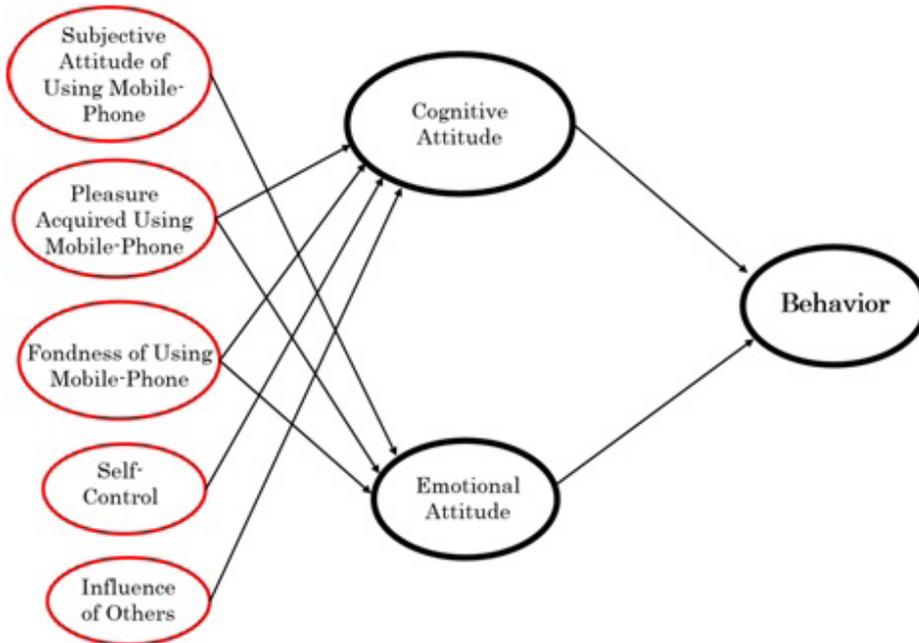
Regarding the effect of the influencing variables on the cognitive attitude, PAUMP and FUMP have negative influence on the cognitive attitude, while self-control and influence of others have positive. However, the result shows SAUMP ( $P = 0.748$ ) does not have influence on cognitive attitude. Hypotheses H5, H7, H9 and H11 are supported and H3 is not.

For the emotional attitude, SAUMP, PAUMP and FUMP are found to have positive influence on it while the effects of self-control and influence of others are not obvious. Hypotheses H4, H6 and H8 are supported while H10 and H12 are not.

In our model, the cognitive attitude is the attitude to control using the mobile phone, and the emotional attitude is the emotional experience of the mobile phone accumulated in the process of using the mobile phone. The higher the cognitive attitude of controlling the mobile phone, the more it suppresses the subject's use of phone. Therefore, it should have a negative impact on the use of phone. The higher the emotional attitude, the more dependent the subject is on the phone, and thus it should have a positive impact on usage behavior.

Both assumptions are supported in the analyzing result. However, the subjective attitude of using mobile phone does not have an impact on the cognitive attitude as hypothesized, neither do self-control and influence of others on emotional attitude. After the analysis, the authors randomly picked 30 subjects and phone-interviewed them to have some insights. The interviewees generally have the consciousness of controlling using phones and recognize the influence of excessive usage on personal life and study. The cognitive attitude of controlling using phone always exist and is not affected by the subjective attitude towards phones. The self-control, according to the interviewees, mainly originate from the interference of their parents and the pressure from study. The emotional attitude is built in the interaction with phones. So, the overall feeling of using phones is not affected by the deliberate control. The influence of others is mainly from their peers, parents and teachers. In terms of the choice of apps, recommendation for contents, they are mainly influenced by their peers. But the built-up of the emotion can only happen between the subject and the phone. The influence of others on the emotional attitude is also not obvious. The modified model is plotted in Figure 4.

Figure



According to the model, the most effective influencing variables are focused on the experience of using phones. The pleasure acquired using phones and fondness of using phones even have strong impact on both the cognitive attitude and emotional attitude. The authors believe that key point of children's attitude towards using phones is about where the euphoria and fondness originates. Different acquiring channels determine the role mobile phones play and the quality of the received information. According to the interview, for most rural children the channel of how the influencing variables are generated comes from 'entertainment', which is deemed the main reason for the passive behavior. Correcting the attitude of rural children using mobile phones and expanding its functions in life can correctly shape the use behavior.

## **Analysis**

According to the model built, here we propose some suggestions for guiding rural children to correctly use mobile phones.

### **(1) Transform the joy of entertainment to sense of fulfillment**

In our model, there are two variables that affect cognitive attitude and emotional attitude: pleasure acquired using mobile phones and fondness of using mobile phones. In terms of the relationship between the two variables, the more pleasure gained in the process of using mobile phones, the more fondness accumulated. From the current interviews and other literature reflecting the situation of rural children, the pleasure of using mobile phones mostly comes from entertainment channels such as games and videos. In other words, for rural children, the function of the mobile phone is only 'playing', not a tool for self-improvement. In the current economic background of China, the influence of hardware on the knowledge gap between rural and urban children has weakened. The basic literacy of rural children is the key to closing the gap with urban children. As the principle education site, schools should change their fearful attitude to mobile phones and put mobile phones in a neutral position to inform students of the advantages and disadvantages and correctly guide them to explore knowledge and assimilate mobile phones into tools for learning and understanding the world. When the source of pleasure in using mobile phones changes from entertainment to sense of fulfillment in improving themselves, rural students will re-construct their attitude towards using mobile phones and form a benign use cycle with mobile phone media.

### **(2) Systemize anti-sinking function**

The subjective attitude of using mobile phones in the model affects emotional attitude. When rural children begin to emotionally rely on mobile phones, the

probability of mobile phone addiction formation will increase. The subjective attitude can be divided into two parts. The first is the constructed subjective feeling towards contents during the use of mobile phones. The second comes from the influence of the environment created by the mobile phone media transmission system on children's perception of using mobile phones. Regarding the former, improving the media literacy by correct guidance can effectively reverse their feeling of over-entertainment. With respect to the latter, it is beneficial to create an anti-addiction online environment for juveniles through the self-management of mobile media system.

Taking China's mobile game market as an example, elementary school and junior high school students account for a relatively large proportion in the market. The game environment full of younger users creates a sense of belonging for underage children, which induce younger audiences to become addicted to the game. Rural children lack effective supervision due to family factors and therefore are more likely to overuse mobile phones than urban peers. From the perspective of mobile media communication, the type of audience should be distinguished to enable restrictions on children's use. This restriction is currently implemented in some game apps. For example, the 'Children's Lock' system of the mobile game 'Glory of the King' by Tencent regulates that users under 12 years of age can only play the game with parental consent and online certification under restriction of less than one-hour daily game time. Juveniles over 12 years of age must not play more than two hours per day. This regulation has reduced the number of young users by 40%.

For the mobile media that attracts young users, classification in the management mechanism establishment of anti-indulgence systems such as time limit can promote the awareness of rural children and reduce their excessive use of mobile phones for entertainment. Therefore, a healthy attitude of mobile media contact can be built and the sense of anti-indulgence from the objective environment can be created.

### **(3) Strengthen the concept of influence from others**

The influence of others in the author's model includes two aspects: group influence and parental influence. Group influence originates from the sharing of content in mobile phones among peers. Parental influence is the key to controlling use of mobile phones. Attachment theory points out that from the time of infant, the interaction between parents and children will affect the formation of children's personality, whose influence is lifetime long (Chunyang, 2019). Rural teenagers are initially out of childishness but still lack maturity.

It is still necessary for parents to correctly guide them to establish the cognition of world. Unfortunately, it is in general difficult for parents of rural children to set a good example due to reasons like insufficient education. Some parents themselves are the loyal users of entertainment apps such as Tik Tok. Even in the limited accompany with children, they are still unable to escape the dependence on phones, failing to satisfy their children's need for family affection, let alone providing correct guidance. The premise of correcting the attitude of rural children using phones is that parents have a fair sense of equally treating the phone-using behavior of both themselves and their children, understanding their needs for emotion and life and shaping the benign relationship between children and phones with self-example.

In short, in China's current network environment, mobile phones are not only a communication tool, but developed into a mobile Internet medium. The up and down sides of mobile phones are determined by the attitude of the user. The positive side of the mobile phone is the improvement on the alienated relationship between rural children and parents to certain extent. Controlling mobile phone behavior is not just a matter for rural children, but also for adults. Parents' correct attitude on use of phones can directly influence the attitude of their children, promoting them to control the excessive use and make mobile phones an information resource rather than an entertainment tool.

## **Conclusion**

The use of mobile phones is an inevitable trend in the development of society. Rural children are in a weak position in terms of educational resources and social concerns. On the one hand, mobile phones have brought them closer to modern life and provided information about the outside world. On the other hand, the information gap between rural children and urban children has increased due to problems of operation and information sources. The reason why it is difficult to shape the correct use of phones is lack of guidance and deviation of use (too much use of entertainment function). The objective living environment of rural children and the rationality of the educational platform rely on the macro social system to provide improvements to shape the benign living space for rural children. Rural children's correct attitude towards the use of phones requires the diverse guidance from schools, parents and others to fundamentally establish a benign attitude to use phones as good information source with a balance between learning and entertainment.

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