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# ICT Usage at Rural Libraries: Does Positive Youth Development exist?


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# ICT Usage at Rural Libraries: Does Positive Youth Development exist?

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## **Abstract**

This study was to discover the Positive Youth Development (PYD) dimensions towards ICT usage in rural libraries among youths in Malaysia. This is a quantitative design and descriptive study in nature, which involved 400 respondents among rural youths from 16 selected rural libraries in four states of Peninsular Malaysia were chosen based on multistage cluster and simple random sampling. Rural youth community in Malaysia exhibited high level of PYD towards ICT usage at rural libraries especially on level of confidence when using ICT. Based on the analysis performed, education level and employment status have significance difference, meanwhile age has positive relationship with PYD towards ICT usage at rural libraries. The findings are of limited generality due to the small size of the sample. However, the study has implications on the understanding of the acceptance of technology among socioeconomically disadvantaged people towards PYD. The practical implications is the implementation of PYD through ICT usage in local rural libraries instead of other positive places, particularly in terms of local community participation. Data on demographic can be used as evidence of service provision for rural community in the future.

**Keywords** - ICT usage; library usage; rural library; positive youth development; rural youth; community development.

## **Introduction**

Several government initiatives have been implemented, to foster Malaysia as one of the developing countries in the world. Including rural areas, they were not neglected in efforts of the nation on planning and development programs. Rural Library as one of the government initiatives in providing information services to rural communities, that believes would benefit them in terms of socio-economic development. Due to rural library establishment that equipped with ICT facilities and services, to what extent the rural communities especially youth fully utilized the facilities and services provided. This study was designed to extend the beyond of ICT usage in rural library among rural youth in Malaysia towards their Positive Youth Development (PYD). Deployment of this new technology is not limited only to urban areas, where these technologies are still accessible and usable in rural areas. Hence, as an education retrieving tools which is similar with people living in the city or other developing countries, ICT may contribute to awareness of surrounding development (Bashir et al., 2011).

There were ample scholarly evidence on PYD effectiveness at homes, schools and community based programs (Beson et al., 2006). Yet, PYD studies have not investigated the role of rural library as a place with the same intensity as the other positive places. As eloquently stated by Thioune (2003), the use of ICT could positively impact in terms of communication, education, economic growth, and mobility, as well as providing opportunities for positive development. The purpose of this study was to discover the PYD towards ICT usage in rural libraries among youths in Malaysia. It is therefore important to conduct more research to understand and to determine the demographic factors that might determine PYD aspects in this regard. The study is

important, as data on demographic play a vital role in government intervention programs, which can be used for policy evaluation and policy improvement on a continuous basis. Using PYD data, policy makers can identify individual outcomes within the target group, thereby encouraging the government to take initiatives across different groups in society.

### *Context of the study*

Rural libraries have been part of the government initiatives with the intention of promoting community development by increasing the quality of social and economic life among rural communities in Malaysia. Rural library aims to provide the rural communities with readily information and learning centre for their use. In addition, the initiatives could hopefully facilitate the rural communities with comprehensive and complete recreational facilities which indirectly can improve the literacy rate in rural areas (Muhammad, 2004). This study focused only on rural library users that are categorized as youth (aged between 15 to 40) in Peninsular Malaysia. While the ICT facilities provided by the rural libraries such as computer/ laptop, Internet/Wifi, printer, scanner, photostat machine, telephone (fixed line), fax machine, television, radio, DVD/VCD player measure in this study.

Furthermore, the context of this present study was aims to expand the holistic multidimensional Positive Youth Development (PYD) by assuming that each dimension is significantly related to reflect as outcomes of ICT usage in rural libraries among youth. PYD model introduced by Lerner et al. (2005) is actually based on programs to develop youth in a manner ways of self-development (Competence, Connection, Character, Confidence, Caring, and Contribution). Pigg (2005) included technology as one of the factors in the guideline for achieving community development.

PYD which has been introduced by Lerner et al. (2005) is based on programs orientation in seeking to empathize, educate and involve youth in productive activities.

### **Literature Review**

ICT is playing important roles on society in terms of development. It is clear that enhancement of ICT has made an impressive transformation of socio-economic environment in nations. ICT also acts as a mechanism in bridging the digital divide that exists between rural and their counterpart urban areas (Bashir et al., 2011). This strategy is to rapid rural community development by improving the living conditions of communities in rural areas. For example, by providing the rural communities with ICT facilities and services such as telecentres, it does not only close the digital gap, but it is also bringing the benefit of ICT to the rural poor. In line with the statement, Kelles-Viitanen (2005) stressed on the role of ICT which has proved that it could provide opportunities on educational and health in terms of services, and promoting democracy based on good governance which catalyst in the task of poverty reduction. The World Bank Group (2012) reported that ICT can be effectively used for the purposes of increasing business productivity, improving accountability, accelerating economic growth and also overcoming poverty in any society. Supported by the statement, Thioune (2003) emphasises that the use of ICT could positively impact on various kinds of advancement and development of society (economic, education, communication, mobility) which could promote opportunities for positive development.

Malaysian government intends to reduce the gap between rural and urban communities in the context of information acquisition. Elaborating on how important rural library to the users and community development, it is to be said that rural libraries will incorporate change in terms of information technology as well as continuing to provide access to the knowledge (Goulding, 2008). Besides that, ICT in rural libraries

can support the learning and self-development culture among local community. Furthermore, for young adult or adult group of users, they can use the ICT facilities to seek for job information or practice online learning (e-learning) via blog or video tutorial (Zillien and Hargittai, 2009). In addition, ICT provision such as internet and Wi-Fi will make sure the rural library users are always connected with family members, friends or teachers/ lecturers remotely. Using the social network applications, rural communities will also be able to communicate with their relatives in real-life time. Indirectly, the ICT has reduced the digital gap through the communication abilities using the same technologies as others that living in urban and other developing countries (Bashir, 2011). More activities and programs involving ICT in rural libraries could also increase the usage and in the same time will gain the users' confidence in using the technologies especially for the elders (Omar et al., 2012a). Relates to the ICT programs provision, however the community-initiated and community-led is very important on community engagement process. As argued by Hui-Yun Sung, et al. (2011), to encourage participation, involvement and community commitment; community engagement and library partnership were the best practices which can increase the awareness among community in in improving their socioeconomic development.

Internet offers various useful tools for communication (e-mail, World Wide Web, file transfer, newsgroups, and text/ voiced-based chat), information retrieval (search engine, download/upload files), educational resources and business tools (e-commerce) that will benefit the users either in terms of self-development or community development as a whole which has been mentioned by abundance of literatures (Samsuddin et al., 2015; Mchombu and Cadbury, 2006; Zillien and Hargittai, 2009). Rural libraries that provide ICT facilities and services (inclusive Internet) act as agents in community development by creating activities that impact positively on the

economic and social life of rural communities as agreed by Samah et al. (2011) and Bashir et al. (2011) which have the same effect on telecentres. Hence, delinquent behaviours among rural youth could increase (Caldwell and Smith, 2006).

### *Positive youth development through rural library services*

Based on previous literatures, numbers of community development programs and services has been provided at rural libraries in Malaysia (Kibat, 1991; Anwar, 1996; Raja and Saidina, 2003; Shaharom, 2006). However, according to Yunus (2007), most studies are focusing on youth development in the context of political, economic and socio-cultural only. This present research examined the implementation of PYD through ICT usage at rural libraries in Malaysia, particularly in terms of competence, connection, character, confidence, caring and contribution.

Study done by Hoq (2015), showed that by providing information and communication services to the rural people through the rural library and information centres, the communities will gain benefits in term of socio-economic development. Buschman and Leckie (2007) described rural libraries not just places containing books but more as social and cultural institution, which have the potential to provide useful and meaningful type of resources for the community. The absence of information and ICT services may lead to poverty and disadvantage. That is why the contribution of development and empowerment of individuals as well as the community are important in promoting wellbeing. This statement is in-line with Wu (2010), which stressed on the role of the rural libraries.

Based on previous study by Masrek and Rashidi (2012), ICT are perceived useful by rural community which it does act as helpful tool, consistent with Hassan et al. (2011). Positive attitude towards using the ICT among the rural communities will bring benefits in reducing the digital divide and overall society development. The

attitude of each rural community plays an important role in influencing the usage of ICT in rural libraries (Samah et al., 2011; Mazuki et al., 2014). Mazuki et al. (2014) and Omar et al. (2012b) concluded that, this is where the roles of librarian are crucial which effective promotion is needed in increasing the numbers of users in the rural library and indirectly use the ICTs provided. Furthermore, Samsuddin et al. (2014) addressed if rural communities fully utilize the facilities, it will benefiting the students in achieving better results and increase local economy. Rural libraries with ICT facilities have created new social and economic opportunities for the community through ICT empowerment, developmental programs for people living in rural areas, health and maintenance support and place to store learning materials that can improve qualities of life.

As mentioned by Lerner et al. (2005) on PYD, people will contributing positively to themselves, their family, community, and civil society when they were engaging with people and institutions in their social world. Several recent studies have found a significant relationship on ICT usage towards Community Development. Pigg (2005) discusses the guidelines for achieving development in the community, where technology is one of the factors. Bolong et al. (2013) has related that any industry is in need of ICT in their development process. In his studies have found that usage of advance technologies such Wi-Fi and GPS can significantly impinge on fisherman income which assists in economic development of rural communities. Community informatics can be defined as “a technology strategy or discipline which links economic and social development at the community level with emerging opportunities” (Gurstein, 2000) in wide and several of ICT applications. While Sahharon et al. (2014) indicated that wireless village programmes will lead to more improved socio-economy of the rural community development.



### *Factors that influence PYD*

Several studies have proved that these factors (gender, age, education achievement, employment status, frequency visits) tend to turn individuals to their advantage in a meaningful and positive manner, such as education and job purposes (Owen et al., 2003). Individuals who have more experience and skills in using ICT which related most on their increases of age, frequency visits, education level and jobs requirement, will reflect a higher level of familiarity and ICT usage towards PYD. Balakrishnan (2002) and Grimes (2000) approved that Internet usage in rural community context can enhanced knowledge, skills, and employment opportunities which can be considered as influence factors of this study.

Internet services are also provided to strengthen the development of socio-economy among rural people. In agreement with the statement, Cecchini and Raina (2002) have proven that Internet promotes equality in gender and improves the skills and expertise especially in the context of employment aspects. Through employment offered and increased job skills, they can indirectly solve the poverty problem among rural community (Rao, 2004 and Abdul Razaq et al., 2009). Their abilities can indirectly influence and affects their behaviour either positively or negatively. How ICT usage among rural youth is related and significantly impacts the PYD dimensions is discussed in this paper.

### **Methods**

This is a quantitative design of study in which a well-structured questionnaire was used to obtain the data needed. To measure PYD, a set of 30 questions were developed based on the literature review. For each of the question with regard to PYD towards ICT usage at rural libraries among youths in Malaysia, the respondents were given a five likert like of scale option range from 1 (strongly disagree) to 5 (strongly agree). A total of 16

rural libraries equipped with ICT services were considered from four states (Melaka, Perak, Pahang and Pulau Pinang) which represent each zone (Central, East Cost, South and West) in Peninsular Malaysia by applying the multi-stage cluster sampling. Meanwhile, a total of 400 respondents consist of rural library users in Peninsular Malaysia between 15 to 40 years of age were selected through simple random sampling which 25 respondents represent each rural libraries chosen in the study (25 respondents x 16 rural libraries = 400 respondents). Descriptive and inferential analyses were run using SPSS 21, whereby statistical measurements such as frequency, percentage, mean, standard deviation, t-test, ANOVA and Pearson product moment correlation were employed for the data analysis.

## **Results and discussion**

### *Demographic and socioeconomic profiles*

Table 1 depicts the demographic profile of the respondents. Females respondent were more than males (55%), this finding is consistent with other previous studies regarding the difference of library user between genders (Mohamad Yusoff et al, 2013). While Omar et al. (2016) and Melentieva (2009) perceived that female users are more attracted to visit rural library because of the availability of novels collection. Most of the respondents were students ages between 15 to 17 (39.8%) which have recorded a mean score of 23.2. In tandem with research done by Norshila et al. (2011) and Omar et al. (2016), the majority of rural library users were age between 15 to 17 years old. In addition, more than half of the respondents (57.8%) have their secondary education at least, which is holding the PMR (Lower Certificate of Education) or SPM (Malaysia Education Certificate). The data indicated that majority of the respondents had attended school which also apparently they know how to use the facilities provided at the rural library. With respect to employment status, more than two-third (66.5%) of the

respondents were unemployed which most of them are students and housewives, and 33.5% were employed. In terms of visiting frequency, 38.2% of the respondents visit the library two to five times in a month, and some visit more than six times a month (38.2%) which illustrated that the existence of rural library are still relevant especially among youth. Reflects to the demographic profile, most of the respondents were still studying (Omar et al., 2014) whose often spent their free time visiting the rural library after schools, weekends and during school holidays (Samsuddin et al., 2016). Moreover according to Samsuddin et al. (2016), housewives often visit the rural library during the afternoon after they have completely managed their children and housework. This result was in line with Shaifuddin et al. (2011), which the findings of the respondents' employment status were mainly students and housewives which are under unemployed category.

In terms of household income, 34.3% had RM2001 and above per month, with the average mean of household income were RM2301.87 monthly. The results have shown that most of the respondents have declared above poverty line (RM760), which according to Economic Transformation Programme (ETP) 2014 annual report. It seems that household income at the better stage which possibilities to own ICT applications or equipment were very high, at least one family had one mobile phone. Furthermore, DiMaggio et al. (2004) did argued that higher socio-economic status tend to utilized the ICT, especially the Internet utilization will be more productively and towards economic gain than the less privileged.

Table 1: Demographic profile of the respondents.

Factor	Frequency	Percentage	Mean
<b>Gender</b>			
Male	180	45.0	
Female	220	55.0	

<b>Age (years)</b>			23.2
15 - 17	159	39.8	
18 - 24	104	26.0	
25 - 30	40	10.0	
31 - 40	97	24.3	
<b>Education level</b>			
Primary education	137	34.2	
Secondary education	231	57.8	
Tertiary education	32	8.0	
<b>Household Income</b>			RM2,301.87
Less than RM800	48	12.0	
RM801 - RM1500	125	31.3	
RM1501 – RM2000	90	22.5	
More than RM2001	137	34.3	
<b>Employment status</b>			
Employed	134	33.5	
Unemployed	266	66.5	
<b>Visiting rural library (frequency in a month)</b>			6.62
Once	106	26.5	
2 – 5 times	153	38.2	
More than 6 times	141	35.3	

### *Level of PYD towards ICT usage at rural libraries*

Table 2 summarizes the results with regards to the overall level of PYD towards ICT usage at rural libraries, while Table 3 demonstrates each of the specific statements used to measure the respondents' PYD. To obtain the overall mean score, the cumulative mean score of all the statements was calculated, and then was divided equally into three categories, namely low (1.00-2.33), moderate (2.34-3.67) and high (3.68-5.00). The results demonstrate that the respondents scored a high overall mean score ( $M = 3.89$ ), which portrays the probability that the majority of them possess a PYD towards ICT usage at rural libraries.

In measuring respondents' PYD towards ICT usage at rural libraries, a total of thirty statements were developed. It can be seen that all of the statements recorded a high mean score (3.68-5.00) ranging from 3.71 to 4.05. The highest mean score was

recorded from the statement, by using ICT in the rural library, “Give me high level of confidence in gaining knowledge” ( $M = 4.05$ ), followed by “Give me confidence to use ICT”, and “Allow me to be more independent”. Therefore the respondents were generally having high level of confidence on PYD when using ICT at rural library. This finding was in line with study done by Omar et al. (2012a) and Hassan (2008), which stated that, activities, programs and continuously courses involving ICT in rural libraries could also increase the usage and in the same time will gain the users’ confidence in using the technologies with further enhanced the ICT knowledge and skills especially for the elders. Moreover, according to Ramli et al. (2015), ICT have beneficially youth on confidence aspect and lead them to have new opportunities while utilizing the new technologies. However, the results were contrast with study done by Hasim and Salman (2010), which have found that youth having issues on security and interruptions could leads to lack of confidence and reflect in refusal of ICT usage.

Besides that, the respondents’ perceived by using ICT in rural library it will give them the opportunity to contribute in terms of views and opinions. Moreover, ICT were allowing rural youth community to get involved in local community programs, and allow them to contribute their energy and money to the community. For example, youth should be involved in the planning process of local community programs which they will attract youth community to join the programs as they were also important in the communities. In line with Smith (2001), which has suggested to create Youth Advisory Board in the rural area to make sure the involvement of youth in developing appropriate services in the community not only in terms of library services but inclusive other programs conducted by village association. Based on the analysis performed, it can be concluded that rural youths have significance effect on PYD towards the ICT usage at rural libraries.

Table 2: Overall level of PYD towards ICT usage at rural library

Level of PYD	Frequency	Percentage	Mean	S.D.
Low (1.00 – 2.33)	1	0.3	3.89	.60
Moderate (2.34 – 3.67)	131	32.7		
High (3.68 – 5.00)	268	67.0		

Table 3: Level of PYD towards ICT usage at rural library

Item	Mean	Standard deviation
1. My competency level in creative thinking can be increased	3.80	.87
2. My competency level in academic improve	3.78	.80
3. My competency level in social life improve	3.77	.84
4. My information searching technique improve more effectively	3.94	.78
5. My critical thinking skills can be improved in healthier way	3.94	.82
6. My relations with my families are better and friendlier	3.79	.90
7. My relations with my close and distant relatives are better	3.84	.91
8. My relations with my colleagues are better (school, universities, workplace)	3.93	.88
9. My relations with teachers/ lecturers/ employer are better	3.76	.93
10. My relations with neighbors and villagers	3.83	.91
11. Has taught me to be a person with integrity	3.80	.95
12. Developed me to be responsible	3.93	.79
13. Developed me to be moralized	3.95	.78
14. Developed me to be more respectful to others	3.92	.84
15. Raised my awareness on ethics of Internet usage	3.97	.85
16. Give me high level of confidence in gaining knowledge	4.05	.86
17. Game me the confidence to communicate with the community	3.97	.82
18. Allow me to be more independent	3.98	.82
19. Taught me to respect the dignity	3.97	.85
20. Give me confidence to use ICT	4.01	.83
21. Make me a person with high human values	3.90	.89
22. Make me a person with empathy / understanding	3.89	.83
23. Allow me to share feelings with others	3.82	.91
24. Made me understand the meaning of justice and hardship	3.88	.83
25. Encourage me to help others who need help	3.97	.87
26. Giving me the opportunity to share knowledge with community	3.92	.89
27. Give me the opportunity to provide views and opinions	3.95	.81
28. Allow me to get involved in local community programs	3.87	.85
29. Allow me to contribute energy and money to the community	3.71	.90
30. Involve me in the planning/ implimentation of program activities for the local community	3.87	.92

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*Demographic factors affecting PYD towards ICT usage at rural libraries**Differences in PYD towards ICT usage at rural library*

Based on data presented (Table 4), there is no significant difference was identified in relation to gender;  $t(400) = 1.886$ ,  $p = 0.170$ . This is based on  $M = 3.82$ ,  $SD = 0.62$  for males and  $M = 3.94$ ,  $SD = 0.58$  for females. These results reflect the possibility that males and females have equal opportunities to use the ICT at rural libraries towards PYD in similar with Cecchini and Raina (2002). This scenario might be related to the environment of rural libraries in Malaysia, wherein the spaces, reading sources and services offered are not biased towards either gender. In terms of employment status, based on  $M = 4.05$ ,  $SD = 0.53$  for employed respondents and  $M = 3.81$ ,  $SD = 0.62$  for unemployed respondents, there was significant difference between the employed and unemployed respondents in terms of their PYD towards ICT usage in rural libraries;  $t(400) = 9.336$ ,  $p = 0.002$ . This finding was in-line with Mohamad Yusoff et al. (2013) who have found that unemployed users have more favourable attitude towards rural library services as they are not constrained by time or job commitments. Besides that, the specific time for school students and housewives visiting the rural library was during the afternoon to search for their reading sources and meeting friends (Samsuddin et al., 2016). PYD as an outcome seems to be more effective on employed respondents when they were really connected with ICT at the rural libraries. The differences in using the ICT between these two groups still can be argued. Employed respondents always use the ICT or Internet on the purposes for online learning (e-tutorial), job opportunities, and skill development which was more related with their PYD (Zillien and Hargittai, 2009). Hence, school students spent longest average online hours in a week and stated as most frequent visitors at rural libraries, but their activities more on leisure purposes such as social networking and games (MCMC, 2016).

Table 4: Differences in PYD towards ICT usage at rural library using independent t-test

<b>Variables</b>	<b>n</b>	<b>Mean</b>	<b>S.D.</b>	<b>t</b>	<b>p</b>
Gender				1.886	.170
Male	180	3.82	.62		
Female	220	3.94	.58		
Employment status				9.336	.002
Employed	134	4.05	.53		
Unemployed	266	3.81	.62		

Depicts from table 5, surprisingly there were no schools dropout according to the results, which have shown that every person has equal opportunities to go to school and Malaysia government were serious in handling education and literacy. Based on the results, it can be seen that the F value (7, 400) = 2.650,  $p < 0.05$  (0.016) confirms that there was significant difference in PYD towards ICT usage at rural libraries across the groups studied (Table 5). These results shown that, there were difference in PYD towards ICT usage at rural libraries between PMR and SPM holders, however in very low differences. Youth tends to be more matured and reasonable according to their difference of level of education which leads to the increasing of awareness in terms of PYD. These findings are in line with Samsuddin et al. (2016) and Omar et al. (2016) who found that education is one of the factors that affect positive development towards ICT and library usage.

Table 5: Differences in PYD towards ICT usage at rural libraries using ANOVA

<b>Variables</b>	<b>n</b>	<b>Mean</b>	<b>S.D.</b>	<b>F</b>	<b>p</b>
				2.650	.016
Primary school	4	4.03	.64		
PMR*	133	3.73	.65		
SPM*	178	3.96	.57		



Certificate/STPM	30	3.98	.48
Diploma	23	3.95	.54
Bachelor Degree	28	4.00	.64
Postgraduate	4	4.22	.60

\*significance difference at .05

*Relationship between PYD towards ICT usage at rural libraries and selected independent variables*

The analysis shows that age has a positive correlation with PYD towards ICT usage at rural libraries ( $r = .169$ ;  $p = .001$ ), which reflects that as ages increased, the more positive development the youth will gain while using the ICT. Youth tends to understand and became more ICT literate which indirectly encourage them to utilize the ICT into positive use. ITU (2008) have discovered that whenever youth access to information in their adulthood it will leads towards better access on training (career or studies), markets, capital, and participation in political. In addition, in line with MCMC (2016) findings, that ICT usage skill is really important to youth for their career development in the future which ICT as one of the requirements in the industries (Rao, 2004 and Abdul Razaq et al., 2009). While the analysis on monthly visiting frequency has no significant relationship with PYD towards ICT usage at rural libraries ( $r = .075$ ;  $p = .136$ ), which denotes that although the more times respondents visit rural libraries each month, their PYD will not certainly be increase in using ICT (Table 6). There were different types of visitors who like to visit the rural library. Not only to use the ICT services, several activities done by the respondents at rural library were to complete assignments, doing school exercises, search for information, readings and hang out with friends also can increased their PYD (Anwar and Supaat, 1998; Samsuddin et al., 2016).

Table 6: Relationship between PYD towards ICT usage at rural libraries and selected independent variables using Pearson product moment correlation

<b>Variables</b>	<b>r</b>	<b>p</b>
Age	.169	.001
Frequency visits	.075	.136

### **Conclusion and recommendations**

Overall, PYD amongst rural youths towards ICT usage at rural libraries was significantly positive. Also found that rural youth community in Malaysia were generally having high level of confidence on PYD when using ICT at rural library. Nonetheless, there is a need to further improve the ICT facilities and ICT programs that related to youth development especially to the young adult, as this has been proven to influence their PYD. Suggestions that could be made; (1) rural library management could conduct appropriate ICT training to improve their skills, for example, in handling basic computer application (Microsoft Office) and will increase their disclosure with ICT indirectly; (2) intensive promotion to further promote rural libraries to rural communities, particularly youths such as using social media can be conducted; and (3) surveys on needs assessment can be conducted in order to provide relevant services and facilities to the library users in terms of ICT services which can be done on yearly basis. These will help the governments in justifying their budget allocation and formulating related policy to support the rural community. Despite the numbers of recommendations highlighted, it is hoped that it can be accomplished via help and concerned from related parties in constructing an effective strategy to achieve the rural libraries in Malaysia establishment goals. As a social space in the same time promotes a community building and as resource providers for rural youth, beside rural libraries, ICT centres such 1 Malaysia Internet Centre can be considered as subject for future research.

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