

Information and communication technology scale (ICTS)

Huang, Y. N., & Hong, Z. R. (2016). The effects of a flipped English classroom intervention on students' information and communication technology and English reading comprehension. *Educational Technology Research and Development*, 64(2), 175-193.

20 Items

4 Dimensions

Dimension 1. Use diverse methods of finding Information on line (6 items)

1. I have habits to back up my data on regular basis
2. I am capable of managing the huge amount of resources I find and synthesize them into the information I need
3. I usually try to find resources at different places in order to compare their accuracy
4. When I shop for things online, I will check several peoples' feedback postings first and then make my decision
5. I am able to utilize tag functions to manage my Internet resources
6. I am able to compare and contrast the information I find online to double check the correctness it

Dimension 2. Use various software and advanced functions on line (5 items)

7. I am able to utilize Google Doc or other collaborative project platform to co-edit a document with others
8. I am able to utilize e-schedule tools on Internet, smart phone or computer Apps to help me manage my daily schedule
9. I am able to utilize email to communicate with others
10. When I use emails, I will put them into different categories
11. I will use the advanced searching function on the Internet to find resources

Dimension 3. Use online software and function effectively (5 items)

12. I am able to utilize the resources found to accomplish my tasks (such as reports or assignments.)
13. I am able to use appropriate key words in search engines to find resources when looking up information on the Internet
14. I find resources on the Internet efficiently
15. I am able to utilize online tools or software to help me complete my assignments
16. I am able to use my favorite or tag function to manage my webpage on search engines

Dimension 4. Use different tools to share information online (4 items)

17. I am able to utilize Facebook to express my options for ideas
18. I am able to utilize instant communicative software such as MSN, FaceTime or Line to communicate with others
19. I am able to use video clips to share my stories
20. I am able to use the Internet to share new knowledge or information I find with others

4- Likert scale ('4' represents 'strongly agree' and '1' represents 'strongly disagree')

Cronbach's $\alpha = 0.90$