



ក្រសួងអប់រំ យុវជន និងកីឡា

ការវិភាគបច្ចេកទេស អប់រំកម្ពុជា

CAMBODIA EDUCATION REVIEW

វ៉ុល៦ លេខ១

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គ្មានផ្នែកណាមួយនៃការបោះពុម្ពនេះ អាចត្រូវបានយកទៅផលិតឡើងវិញ ដោយគ្មានការអនុញ្ញាតជាលាយលក្ខណ៍អក្សរជាមុនពីអ្នកបោះពុម្ពផ្សាយឡើយ។

បោះពុម្ព និងវាយអក្សរ នៅប្រទេសកម្ពុជា ដោយកាលិកបត្រអប់រំកម្ពុជា

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សង្ខេប

បរិវត្តកម្មនៃការអប់រំឌីជីថលគឺជាការផ្លាស់ប្តូរនូវការប្រើប្រាស់បច្ចេកវិទ្យាឌីជីថលក្នុងប្រព័ន្ធអប់រំ ដែលជាវិធីនៃការអភិវឌ្ឍគុណភាពអប់រំ និងវិធីសាស្ត្របង្រៀននិងរៀន ដើម្បីឆ្លើយតបទៅនឹងបដិវត្ត ឧស្សាហកម្ម៤.០។ ការសិក្សានេះ មានគោលបំណងសិក្សានិងឈ្វេងយល់ពីទស្សនៈ និងបញ្ហាប្រឈម របស់គ្រូបង្រៀន និងសិស្សានុសិស្សចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល និងផលជះនៃបរិវត្តកម្មការអប់រំ ឌីជីថលលើដំណើរការបង្រៀន និងរៀននៅកម្រិតវិទ្យាល័យនៅកម្ពុជា។ ដើម្បីបកស្រាយលទ្ធផល ស្រាវជ្រាវឱ្យបានស៊ីជម្រៅ ការសិក្សានេះបានប្រើវិធីសាស្ត្រស្រាវជ្រាវចម្រុះ(ការរួមបញ្ចូលនៃវិធីសាស្ត្រ ស្រាវជ្រាវគុណវិស័យ និងបរិមាណវិស័យ) សម្រាប់ការប្រមូល និងវិភាគទិន្នន័យ។ ការសម្ភាសផ្ទាល់ និងកម្រងសំណួរត្រូវបានប្រើសម្រាប់ការប្រមូលទិន្នន័យ។ ទិន្នន័យនៃការសម្ភាសពាក់កណ្តាលចនា

សម្ព័ន្ធ ត្រូវបានវិភាគដោយការប្រើវិធីសាស្ត្រវិភាគពណ៌នា។ ទិន្នន័យនៃកម្រងសំណួរត្រូវបានវិភាគដោយវិធីសាស្ត្រវិភាគពណ៌នាស្ថិតិ។ លទ្ធផលនៃការស្រាវជ្រាវនេះបានបង្ហាញថា បរិវត្តកម្មនៃការអប់រំឌីជីថលបានផ្តល់សារៈសំខាន់ដល់ការលើកកម្ពស់គុណភាពអប់រំ និងការធ្វើកំណែទម្រង់វិស័យអប់រំ។ បរិវត្តកម្មនៃការអប់រំឌីជីថលជួយគ្រូបង្រៀន និងសិស្សឱ្យអភិវឌ្ឍសមត្ថភាពឌីជីថល។ ដូច្នោះ ការសិក្សានេះបានផ្តល់នូវអត្ថប្រយោជន៍ជាច្រើនដល់ការអប់រំឌីជីថលរួមមាន ការពង្រឹងគុណភាពអប់រំឌីជីថល ការអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងរៀន ការអភិវឌ្ឍសមត្ថភាពឌីជីថលរបស់គ្រូបង្រៀននិងសិស្ស និងការរួមបញ្ចូលគ្នានៃប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលជាមួយនឹងការបង្រៀននិងរៀនបែបប្រពៃណី។

ពាក្យគន្លឹះ ៖ បរិវត្តកម្មឌីជីថល ការអប់រំឌីជីថល បរិវត្តកម្មនៃការអប់រំឌីជីថល គុណភាពអប់រំឌីជីថល

Abstract

Transforming digital education is the process of digital transformation in the education system as a way to improve the quality of education and teaching and learning methods in response to the Industrial Revolution 4.0. This study aimed to examine the perceptions and challenges of teachers and students regarding the transformation of digital education and the impact of the transformation of digital education on the teaching and learning process at high schools in Cambodia. To present the research results in depth, the study used mixed research methods (a combination of qualitative and quantitative research methods) for data collection and analysis. Face-to-face interviews and questionnaires were employed to collect the data. The collected data from semi-structured interviews was analyzed using the narrative analysis method. The gathered data from case-based questionnaires was analyzed using the descriptive statistics analysis method. The results of this recent research showed that the transformation of digital education gave importance to improving education quality and education reform. Transforming into digital education helped teachers and students develop their digital skills. Thus, this study provided many benefits to digital education, including enhancing the quality of digital education, improving teaching and learning methods, developing the digital skills of teachers and students, and integrating digital technology with traditional teaching and learning.

Keywords: Digital transformation, Digital education, Transforming digital education and digital education quality.

អានក្នុងភាសាខ្មែរ៖ ឈន, ថី., ថៅ, ល., ម៉ៅ, ស., ឡុច, ច., & ឈូក, ស. (២០២៣) បរិវត្តកម្មនៃការអប់រំឌីជីថល៖ ទស្សនៈរបស់គ្រូបង្រៀននិងសិស្សនៅកម្រិតវិទ្យាល័យនៅកម្ពុជា, *កាលិកបត្រអប់រំកម្ពុជា*. ៦ (១), ១-២០។

១. សេចក្តីផ្តើម

ការអប់រំឌីជីថលគឺជាការអប់រំដោយការប្រើប្រាស់ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលក្នុងការបង្រៀន និងរៀនដើម្បីធ្វើកំណែទម្រង់ការបណ្តុះបណ្តាលនិងសាលារៀន ជាពិសេសការបង្កើនធនធានមនុស្សដែលមានជំនាញបច្ចេកវិទ្យាឌីជីថល។ រាជរដ្ឋាភិបាលកម្ពុជាបានបង្កើតគោលនយោបាយបរិវត្តកម្មឌីជីថលក្នុងគោលបំណងធ្វើការអភិវឌ្ឍប្រទេសកម្ពុជាដើម្បីឆ្លើយតបនឹងបដិវត្តឧស្សាហកម្ម ៤.០ (ឧត្តមក្រុមប្រឹក្សាសេដ្ឋកិច្ចជាតិ, ២០២១)។ យោងតាមរបាយការណ៍ថវិកាប្រចាំឆ្នាំរបស់ឯកឧត្តមបណ្ឌិតសភាចារ្យហង់ ជួន ណារ៉ុន រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា (២០២១) បរិវត្តកម្មឌីជីថលនៃការអប់រំគឺជាបេសកកម្មដ៏សំខាន់សម្រាប់គ្រប់ស្ថាប័នអប់រំនិងសំដៅដល់ការផ្លាស់ប្តូរនូវការអប់រំដោយការប្រើប្រាស់ប្រព័ន្ធឌីជីថលក្នុងគោលបំណងធ្វើកំណែទម្រង់និងអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងរៀន ដើម្បីអភិវឌ្ឍធនធានមនុស្សបង្កើនភាពងាយស្រួលក្នុងដំណើរការបង្រៀននិងរៀន និងអភិវឌ្ឍគុណភាពអប់រំប្រកបដោយប្រសិទ្ធភាព។ បរិវត្តកម្មឌីជីថលគឺជាការទាញយកផលប្រយោជន៍ពីការរីកចម្រើននៃបច្ចេកវិទ្យាគមនាគមន៍ ព័ត៌មាន និងបច្ចេកវិទ្យាឌីជីថលដើម្បីបង្កើនផលិតភាពនិងប្រែក្លាយសេដ្ឋកិច្ច-សង្គមកម្ពុជាទៅកាន់ការអភិវឌ្ឍកម្រិតខ្ពស់ (ឧត្តមក្រុមប្រឹក្សាសេដ្ឋកិច្ចជាតិ, ២០២១)។

ការរួមបញ្ចូលគ្នានៃបច្ចេកវិទ្យាឌីជីថលមានសារៈសំខាន់សម្រាប់ការទំនាក់ទំនង ការគ្រប់គ្រងនិងការគាំទ្រដល់ការបង្រៀននិងរៀនក្នុងគោលបំណងផ្តល់ការយល់ដឹងពីរបៀបនៃអប់រំផ្លាស់ប្តូរតាមរយៈការទទួលយកបច្ចេកវិទ្យាឌីជីថល ជាពិសេស ការអភិវឌ្ឍការសិក្សាតាមប្រព័ន្ធឌីជីថលផ្អែកលើតម្រូវការរបស់សិស្ស (Dirk et al., 2021)។ ក្នុងបរិបទឧស្សាហកម្ម៤.០ ការអប់រំឌីជីថលមានសារៈសំខាន់ណាស់សម្រាប់ការប្រែក្លាយប្រទេសកម្ពុជាទៅជាប្រទេសដែលមានសេដ្ឋកិច្ចឌីជីថលនិងបានផ្តល់អត្ថប្រយោជន៍ជាច្រើនដល់ដំណើរការបង្រៀនដែលគ្រូអនុវត្តផ្ទាល់និងការរៀនរបស់សិស្ស។ ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលនិងបណ្តាញសង្គមរួមមាន Computer, Smart Phone, Facebook, YouTube, Telegram, Google, Web-apps, Microsoft Team ដែលបានបង្កើតជាប្រព័ន្ធសិក្សាអេឡិចត្រូនិក និងវេទិកាឌីជីថល ដើម្បីជំនួយដល់ការសិក្សារបស់សិស្សានុសិស្ស។ បរិស្ថានសិក្សាក្នុងយុគសម័យបច្ចេកវិទ្យាឌីជីថលគឺជាកត្តាគន្លឹះនៃបរិវត្តកម្មឌីជីថលនៃការអប់រំ។

អក្ខរកម្មឌីជីថលជាបំណិនចាំបាច់មួយសម្រាប់ការបង្រៀននិងសិក្សាក្នុងសង្គមនៃសតវត្សរ៍ទី២១ដែលបានប្រើប្រាស់បច្ចេកវិទ្យាឌីជីថល(វេទិកាអ៊ីនធឺណិត បណ្តាញសង្គមនិងឧបករណ៍អេឡិចត្រូនិក)។ បរិវត្តកម្មនៃការអប់រំឌីជីថលគឺជាកត្តាសំខាន់ក្នុងការលើកកម្ពស់គុណភាពអប់រំ និងការធ្វើកំណែទម្រង់វិស័យអប់រំ ដើម្បីពង្រឹងការគ្រប់គ្រងសាលារៀនប្រកបដោយប្រសិទ្ធភាពអភិវឌ្ឍវិធីសាស្ត្របង្រៀន

និងរៀន និងលើកកម្ពស់ការសិក្សាមុខវិជ្ជា STEM ជាពិសេស ការលើកកម្ពស់ការអប់រំឌីជីថលនិងការបង្កើតទំនាក់ទំនងរវាងការអប់រំឌីជីថលនៅក្នុងសាលារៀន។ គ្រូបង្រៀនដើរតួនាទីយ៉ាងសំខាន់ក្នុងវិស័យអប់រំ និងដំណើរការបង្រៀន និងរៀន ពីព្រោះគ្រូបង្រៀនត្រូវប្រើប្រាស់ បច្ចេកវិទ្យាឌីជីថល (បច្ចេកវិទ្យាព័ត៌មាន និងសារគមនាគមន៍) ជាចាំបាច់។

តាមការអភិវឌ្ឍបច្ចេកវិទ្យាព័ត៌មាន និងទំនាក់ទំនង ឧបករណ៍ឌីជីថលត្រូវបានប្រើប្រាស់ក្នុងបរិបទកម្មឌីជីថល (Parlak, 2017) ដើម្បីកំណត់ការរីកចម្រើននិងការអភិវឌ្ឍការអប់រំ។ ការធ្វើបរិបទកម្មនៃការអប់រំឌីជីថលគឺជាលទ្ធផលនៃកំណើន (Taşkıran, 2017) នៃការប្រើប្រាស់បច្ចេកវិទ្យាក្នុងដំណើរការបង្រៀននិងរៀន។ សមត្ថភាពឌីជីថល (Parlak, 2017) គឺជាសមត្ថភាពដ៏សំខាន់សម្រាប់គ្រូបង្រៀននិងសិស្ស ដើម្បីអភិវឌ្ឍវិធីសាស្ត្របង្រៀន និងរៀនឱ្យស្របតាមលក្ខខណ្ឌសង្គម និងស្ថានភាពនៃការរីកចម្រើននាពេលបច្ចុប្បន្ន។ បរិបទកម្មឌីជីថលជះឥទ្ធិពលយ៉ាងខ្លាំងដល់ការអប់រំ (Balyer & Öz, 2018) រួមទាំងរចនាសម្ព័ន្ធនិងបរិស្ថានសិក្សា។ ការសិក្សានេះមានគោលបំណងសិក្សានិងឈ្វេងយល់ពីទស្សនៈនិងបញ្ហាប្រឈមរបស់គ្រូបង្រៀននិងសិស្សចំពោះបរិបទកម្មនៃការអប់រំឌីជីថលនៅកម្រិតវិទ្យាល័យនៅកម្ពុជា ដោយផ្ដោតសំខាន់លើផលជះនៃបរិបទកម្មនៃការអប់រំឌីជីថលដល់ដំណើរការបង្រៀននិងការរៀន។ បរិបទកម្មនៃការអប់រំឌីជីថលគឺជាប្រធានបទស្រាវជ្រាវ ដែលជំរុញនិងលើកទឹកចិត្តអ្នកស្រាវជ្រាវឱ្យសិក្សាស្រាវជ្រាវបន្ថែមដើម្បីអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងរៀននៅកម្រិតវិទ្យាល័យប្រកបដោយគុណភាពប្រសិទ្ធភាព និងប្រសិទ្ធផល។ ដូច្នោះ ការស្រាវជ្រាវនេះសិក្សាពីបរិបទកម្មនៃការអប់រំឌីជីថលផ្ដោតលើទស្សនៈគ្រូបង្រៀននិងសិស្សនៅកម្រិតវិទ្យាល័យនៅកម្ពុជា។

ដើម្បីសិក្សាប្រធានបទខាងលើឱ្យបានស៊ីជម្រៅ ការសិក្សាស្រាវជ្រាវនេះបានចោទនូវសំណួរសំខាន់ៗចំនួនបីដូចខាងក្រោម៖

- ១. តើគ្រូបង្រៀននិងសិស្សានុសិស្សមានទស្សនៈបែបណាចំពោះបរិបទកម្មនៃការអប់រំឌីជីថលនៅកម្រិតវិទ្យាល័យនៅកម្ពុជា?
- ២. តើគ្រូបង្រៀននិងសិស្សានុសិស្សមានបញ្ហាប្រឈមអ្វីខ្លះចំពោះបរិបទកម្មនៃការអប់រំឌីជីថលក្នុងដំណើរការបង្រៀននិងរៀននៅកម្រិតវិទ្យាល័យនៅកម្ពុជា?
- ៣. តើបរិបទកម្មនៃការអប់រំឌីជីថលមានផលជះអ្វីខ្លះ លើដំណើរការបង្រៀន និងរៀននៅកម្រិតវិទ្យាល័យនៅកម្ពុជា?

២. វិទ្យាសាស្ត្រ

២.១ ការអប់រំឌីជីថលក្នុងសតវត្សរ៍ទី២១

ការផ្លាស់ប្តូរក្នុងយុគសម័យព័ត៌មានវិទ្យា ឥទ្ធិពលនៃសកលការបន្ថយកម្ម និងបច្ចេកវិទ្យាសំដៅដល់ការផ្លាស់ប្តូរចាំបាច់និងកែលម្អប្រព័ន្ធអប់រំវិធីសាស្ត្រនិងដំណើរការបង្រៀននិងរៀន(Bates, 2015)។ Sisman (2016) បានលើកឡើងថា វិទ្យាសាស្ត្រនៃបច្ចេកវិទ្យាព័ត៌មានវិទ្យា និងទំនាក់ទំនងរបស់វាបានបម្រើឱ្យការអប់រំនៅក្រៅសាលារៀន និងការអប់រំពេញមួយជីវិត។ បរិវត្តកម្មឌីជីថលអាចសម្រេចបានដោយការចូលរួមពីគ្រប់ផ្នែកនៃសង្គមនិងតម្រូវការរបស់បុគ្គល (Balyer & Öz, 2018)។ បុគ្គលទាំងឡាយណាដែលមើលឃើញថា ដំណើរការឌីជីថលជាការធ្វើកិច្ចការងារផ្ទាល់ខ្លួន ឬទំនាក់ទំនងជាមួយរដ្ឋកាន់តែមានសុភាពនិងងាយស្រួលក្នុងការទំនាក់ទំនងជាមួយស្ថាប័ននានា នឹងក្លាយជាផ្នែកមួយនៃដំណើរការបរិវត្តកម្មឌីជីថល។

ក្នុងបរិបទនៃការអប់រំឌីជីថល គ្រូបង្រៀនត្រូវមានសមត្ថភាពឌីជីថល ដើម្បីឱ្យមានលទ្ធភាពអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងដើម្បីឆ្លើយតបជាមួយនឹងការអប់រំក្នុងបរិវត្តឧស្សាហកម្ម៤.០។ តាមការសិក្សារបស់លោក Paulo (2020) សមត្ថភាពឌីជីថលគឺជាការប្រើ វាយតម្លៃ និងគ្រប់គ្រងព័ត៌មាននិងទិន្នន័យ ដែលជាការចែករំលែកព័ត៌មាន និងទំនាក់ទំនង ការធ្វើបរិវត្តកម្មឌីជីថល និងការប្រើប្រាស់ ICT ក្នុងដំណើរការបង្រៀននិងរៀន។ ក្នុងក្របខ័ណ្ឌការអប់រំឌីជីថល ជំនាញឌីជីថលគឺជាគោលដៅនៃការបង្រៀននិងរៀន ដែលបង្កើនសមត្ថភាពឌីជីថលដល់គ្រូបង្រៀននិងសិស្ស។

ការរួមបញ្ចូលនៃបច្ចេកវិទ្យាអប់រំផ្តោតលើការកំណត់កត្តាសាលារៀននិងកត្តាបុគ្គលដែលពន្យល់ពីដំណើរការផ្លាស់ប្តូរប្រព័ន្ធអប់រំទៅជាការអប់រំឌីជីថល (Dirk, et al., 2021)។ ក្នុងទសវត្សរ៍ទី២១ ការច្នៃប្រឌិតនិងបច្ចេកវិទ្យាឌីជីថលបានភ្ជាប់មនុស្សទៅនឹងអ៊ីនធឺណិត និងផ្តល់ទិន្នន័យច្រើន ដោយបើកចំហនិងជាវេទិកាស្វែងរកទិន្នន័យសម្បូរបែប (Paunescu, Lepik, & Spencer, 2022) ។

២.២ បរិវត្តកម្មឌីជីថលនៃការអប់រំក្នុងសតវត្សរ៍ទី២១

យោងលទ្ធផលសិក្សាស្រាវជ្រាវមុនៗដែលបានបង្ហាញបរិវត្តកម្មឌីជីថលផ្តោតជាសំខាន់លើការប្រើប្រាស់បច្ចេកវិទ្យាក្នុងការបង្កើតឡើងវិញ (Forrester, 2016; IDC, 2015) និងជាដំណើរការនៃការបង្កើតឌីជីថល និងធ្វើឱ្យមាននូវអ្វីដែលធ្លាប់ជាអាណាឡូក (OECD, 2017; Raab & Griffin-Cryan, 2011)។ បរិវត្តកម្មឌីជីថលរបស់ HEIs កំពុងដំណើរការ និងជាផ្នែកមួយនៃដំណើរឌីជីថលក្នុងការអប់រំ (NV, 2017) ។ Balyer and Öz (2018)បានបង្ហាញថា បរិវត្តកម្មឌីជីថល បានជះឥទ្ធិពលដល់ការអប់រំ

(រចនាសម្ព័ន្ធ និងបរិស្ថានសិក្សា)។ Balyer and Öz ក៏បានលើកឡើងថា បរិវត្តកម្មឌីជីថលនៃការអប់រំ គឺជាក្របខ័ណ្ឌមួយសម្រាប់ប្រព័ន្ធអប់រំ និងតម្រូវការនៃការអភិវឌ្ឍគុណភាពអប់រំឌីជីថល និងការ អភិវឌ្ឍវិធីសាស្ត្របង្រៀន និងរៀន។

គ្រឹះស្ថានឧត្តមសិក្សា (HEIs) បាននិងកំពុងប្រើប្រាស់បច្ចេកវិទ្យាដែលកំពុងរីកចម្រើនជា មធ្យោបាយសម្រាប់កែលម្អការអនុវត្តការអប់រំ និងសម្របខ្លួនទៅនឹងសង្គម ដែលមានការប្រើប្រាស់ ប្រព័ន្ធបច្ចេកវិទ្យា។ បរិវត្តកម្មឌីជីថលនៃការអប់រំគឺកត្តាគន្លឹះសម្រាប់អភិវឌ្ឍវិធីសាស្ត្របង្រៀន និងរៀន (Paulo, 2020)។ បច្ចេកវិទ្យាឌីជីថលបានរួមចំណែកក្នុងការអភិវឌ្ឍគុណភាពអប់រំដែលផ្តោតសំខាន់លើ ការប្រើប្រាស់ឌីជីថលនិងអ៊ីនធឺណិត ការប្រើបច្ចេកវិទ្យាកុំព្យូទ័រ ការសិក្សាពិសោធន៍តាមអនឡាញ ការ សិក្សាបែបបច្ចេកវិទ្យាសហការនិងការរួមបញ្ចូលគ្នានៃបច្ចេកវិទ្យាឌីជីថលក្នុងការបង្រៀននិងរៀន។

សមាហរណកម្មបច្ចេកវិទ្យាឌីជីថលគឺជាបេសកកម្មដ៏សំខាន់សម្រាប់គ្រប់ស្ថាប័នអប់រំនៅកម្ពុជា និងគាំទ្រដល់ការរៀនសូត្រនិងបង្រៀនឱ្យមានប្រសិទ្ធភាព។ ការធ្វើបរិវត្តកម្មឌីជីថល មានគោលបំណង ផ្តល់នូវការយល់ដឹងអំពីរបៀបនៃការផ្លាស់ប្តូរប្រព័ន្ធអប់រំ តាមរយៈការទទួលយកបច្ចេកវិទ្យាឌីជីថល (Dirk, et al., 2021)។ បរិវត្តកម្មឌីជីថលនៃការអប់រំផ្តោតលើការអនុវត្តទស្សនវិស័យអប់រំប្រព័ន្ធផ្សព្វផ្សាយ ការឆ្លុះបញ្ចាំងនិងគាំទ្រដល់ការអប់រំក្នុងដំណើរការធ្វើបរិវត្តកម្មឌីជីថលអំពីទស្សនវិស័យអប់រំនិងប្រព័ន្ធ ផ្សព្វផ្សាយដែលផ្តោតលើការអនុវត្តជាកត្តាសំខាន់។ ដើម្បីប្រើឧបករណ៍ ICT មានស្រាប់ ប្រកបដោយ ប្រសិទ្ធភាព និរន្តរភាព និងត្រឹមត្រូវជាងមុន គ្រឹះស្ថានឧត្តមសិក្សាត្រូវបានជំរុញឱ្យប្រើប្រាស់នូវវិធីថ្មីៗ ដូចជា វិធីសហការ បង្កើត និងចែករំលែកចំណេះដឹង និងធនធានដែលមានទៅដល់ការច្នៃប្រឌិត និង ការរីកចម្រើន (Paunescu, et al., 2022) ។

២.៣ សារៈសំខាន់នៃបរិវត្តកម្មឌីជីថលនៃការអប់រំ

សព្វថ្ងៃនេះ គ្រឹះស្ថានឧត្តមសិក្សាគឺស្ថិតនៅក្រោមសម្ពាធក្នុងការផ្តល់នូវបទពិសោធន៍ឌីជីថលថ្មីៗ និងប្រកបដោយភាពច្នៃប្រឌិតសម្រាប់អ្នកពាក់ព័ន្ធ (ឧទាហរណ៍៖ អ្នកគ្រប់គ្រងអប់រំ គ្រូបង្រៀន និង សិស្ស)។ សម្រាប់ហេតុផលនេះ ស្ថានប័នអប់រំត្រូវតែចាប់ផ្តើមពិនិត្យមើលឌីជីថលទាំងមូល និងផ្លាស់ប្តូរ ដោយអនុវត្តការគិតឌីជីថល និងការប្រើប្រាស់បច្ចេកវិទ្យាដែលជួយឱ្យគ្រឹះស្ថានអប់រំគ្រប់គ្រង រាល់គំនិតផ្តួចផ្តើម និងវិធីសាស្ត្រឌីជីថល (Silva, 2017)។

បរិវត្តកម្មឌីជីថលនៃការអប់រំផ្តល់នូវសារៈសំខាន់ក្នុងការបង្កើតយុទ្ធសាស្ត្រឌីជីថលសម្រាប់ ប្រព័ន្ធអប់រំ ការគ្រប់គ្រងលើការប្រើប្រាស់ICTក្នុងការអប់រំ និងការបង្កើតហេដ្ឋារចនាសម្ព័ន្ធឌីជីថលក្នុង ការអប់រំ (ដំណើរការអ៊ីនធឺណិត ឧបករណ៍ឌីជីថលនិងបរិស្ថានសិក្សាឌីជីថល) (Paulo, 2020)។

បច្ចេកវិទ្យា ឌីជីថលគឺជាការគ្រប់គ្រងដល់ដំណើរការសិក្សារបស់សិស្សានុសិស្ស ការផ្តល់ធនធានសិក្សា សម្បូរបែបដល់សិស្ស និងអាចប្រែក្លាយការបង្រៀននិងរៀនទៅជាការអនុវត្តក្នុងថ្នាក់រៀន។

បច្ចុប្បន្ននេះ ទស្សនវិស័យសម្រាប់ឧត្តមសិក្សាត្រូវបានភ្ជាប់ដោយផ្ទាល់ទៅនឹងដំណើរការនៃ ឌីជីថលបន្ថែមកម្មវិធីស្របតាមនិន្នាការសកលនៃសង្គមឌីជីថល និងសេដ្ឋកិច្ចឌីជីថល (Yureva, et al., 2020)។ ក្នុងបរិបទឌីជីថល ស្ថាប័នអប់រំបាននិងកំពុងទទួលយកបច្ចេកវិទ្យាថ្មី និងផ្លាស់ប្តូរការ អនុវត្តនិងដំណើរការអប់រំ។ បរិបទឌីជីថលក្នុងគ្រឹះស្ថានឧត្តមសិក្សាគឺជាការបង្ហាញពីការអភិវឌ្ឍនៃ វិធីសាស្ត្រនិងការអនុវត្តកាន់តែជឿនលឿននិងមានប្រសិទ្ធភាពជាងមុនក្នុងការស្វែងរកបេសកកម្មរបស់ ឧត្តមសិក្សា (Alenezi, 2021)។ លោក Alenezi ក៏បានបន្ថែមថា បរិបទឌីជីថលនិងការអប់រំមាន ទំនាក់ទំនងគ្នាដោយមិនអាចខ្វះបានដូចជា ការរួមបញ្ចូលនៃបច្ចេកវិទ្យាឌីជីថល និងការអប់រំនៅ គ្រឹះស្ថានឧត្តមសិក្សា។

៣. វិធីសាស្ត្រស្រាវជ្រាវ

៣.១ ការជ្រើសរើសវិធីសាស្ត្រស្រាវជ្រាវ

ការសិក្សានេះ បានប្រើវិធីសាស្ត្រស្រាវជ្រាវចម្រុះ (Ivankova & Crewell, 2009; Than, 2021) ដែលរួមបញ្ចូលវិធីសាស្ត្រស្រាវជ្រាវគុណវិស័យ (Denzin & Lincoln, 1994) និងបរិមាណវិស័យ (Lennon, 1990; Hsieh & Shannon, 2005) សម្រាប់ការប្រមូលនិងការវិភាគទិន្នន័យ។ ការសិក្សានេះ បានប្រើប្រាស់ឧបករណ៍ប្រមូលទិន្នន័យដូចជា សម្ភាសន៍ផ្ទាល់ (Masadeh, 2012) និងកម្រងសំណួរ (Graesser & McMahan, 1993)។ វិធីសាស្ត្រវិភាគទិន្នន័យរួមមាន វិធីសាស្ត្រវិភាគពណ៌នាសម្រាប់វិធី សាស្ត្រវិភាគទិន្នន័យគុណវិស័យ និងវិធីសាស្ត្រវិភាគពណ៌នាស្ថិតិ (Biecek & Burzykowski, 2021) សម្រាប់វិធីសាស្ត្រវិភាគទិន្នន័យបរិមាណវិស័យ។

៣.២ ការជ្រើសរើសសំណាក

ការសិក្សានេះ បានជ្រើសរើសយកសំណាកចំនួន ៩០០ (គ្រូបង្រៀន ៣០០នាក់ និងសិស្ស ៦០០នាក់) នៃវិទ្យាល័យចំនួន២០ ក្នុងខេត្តចំនួន៥។ សំណាកទាំងនោះ ត្រូវបានជ្រើសរើសដោយការប្រើ ប្រាស់វិធីសាស្ត្រ កំណត់ចំនួន(Population)។ សំណាកសិស្សដែលត្រូវបានជ្រើសរើស គឺជាសិស្សថ្នាក់ទី ១០ ១១ និង១២ នៃវិទ្យាល័យសុខាផល្លី វិទ្យាល័យកំពង់ស្ពឺ វិទ្យាល័យ ហ៊ុន សែន ចំបក់ វិទ្យាល័យឌីប៉ុក វិទ្យាល័យតេជោ ហ៊ុន សែន ត្បូងឃ្មុំ វិទ្យាល័យ ហ៊ុន សែន ខ្នា វិទ្យាល័យ ហ៊ុន សែន ពញាក្រក វិទ្យាល័យ សម្តេច ហេង សំរិន អន្លង់ជ្រៃ វិទ្យាល័យព្រះសីហនុ វិទ្យាល័យហ៊ុនសែនកំពង់ចាម វិទ្យាល័យសម្តេច

ជួនណាត វិទ្យាល័យ ហ៊ុន សែន ស្ថាន វិទ្យាល័យមិត្តភាពកម្ពុជា-ជប៉ុនកំពតក្រុង វិទ្យាល័យព្រះនរោត្តមរណប្បទិ វិទ្យាល័យ ហ៊ុន សែន ឈូក វិទ្យាល័យ ហ៊ុន សែន ត្រសកកោង វិទ្យាល័យ ប៊ុនរ៉ានី ហ៊ុន សែនបាទី វិទ្យាល័យ ជា ស៊ីមតាកែវ វិទ្យាល័យសម្តេចឪ វិទ្យាល័យហ៊ុនសែនលើទាល និងវិទ្យាល័យក្រុងព្រះសីហនុ នៅក្នុងខេត្តកំពង់ស្ពឺ ត្បូងឃ្មុំ កំពង់ចាម កំពត តាកែវ និងព្រះសីហនុ។ គ្រូបង្រៀនគឺជាសំណាកចាំបាច់ដែលបានជ្រើសរើសចេញពីវិទ្យាល័យទាំង ២០ នៃខេត្តទាំង ៥ ខាងលើ ដើម្បីសិក្សាពីទស្សនៈរបស់គ្រូបង្រៀនចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល។ សំណាកទាំងនេះ ត្រូវបានជ្រើសរើសជាសំណាកគំរូដើម្បីសិក្សាអំពីទស្សនៈនិងបញ្ហាប្រឈមរបស់គ្រូបង្រៀន និងសិស្សចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថលនិងផលជះនៃបរិវត្តកម្មការអប់រំឌីជីថលលើដំណើរការបង្រៀននិងរៀននៅកម្រិតវិទ្យាល័យនៅកម្ពុជា។

៣.៣ ការប្រមូលទិន្នន័យ

សម្រាប់កម្រងសំណួរ អ្នកស្រាវជ្រាវបានធ្វើបទបង្ហាញពីគោលបំណង និងប្រធានបទនៃការស្រាវជ្រាវមុនពេលស្នើសុំឱ្យអ្នកចូលរួមបំពេញកម្រងសំណួរ។ បន្ទាប់មក អ្នកស្រាវជ្រាវបានចែកកម្រងសំណួរជូនដល់អ្នកចូលរួមចំនួន ៩០០ នាក់ ដើម្បីឆ្លើយសំណួរ។ ចម្លើយនៃកម្រងសំណួររបស់អ្នកចូលរួមទាំងនោះត្រូវបានប្រមូលសម្រាប់ទិន្នន័យស្រាវជ្រាវដើម្បីសិក្សាពីផលជះនៃបរិវត្តកម្មនៃការអប់រំឌីជីថលលើដំណើរការបង្រៀននិងរៀន។

សម្រាប់សម្ភាសន៍ផ្ទាល់ អ្នកស្រាវជ្រាវបានជ្រើសរើសយកសំណាកចំនួន ៩០ (គ្រូបង្រៀនចំនួន ៤០ នាក់ និងសិស្សចំនួន ៥០ នាក់) ដើម្បីសម្ភាសជាបុគ្គលម្នាក់ៗ ដោយការប្រើប្រាស់សំណួរសម្ភាសន៍ដែលបានរៀបចំទុកជាស្រេច (Structured Interview)។ បន្ទាប់ពីការជ្រើសរើសអ្នកដែលត្រូវបានធ្វើការសម្ភាសដោយលក្ខណៈវិនិច្ឆ័យពីរយ៉ាង (ចំណេះដឹងឌីជីថល និងបទពិសោធនៃបច្ចេកវិទ្យា) រួចមក អ្នកស្រាវជ្រាវបានចាប់ផ្តើមធ្វើការសម្ភាសអ្នកត្រូវសម្ភាសន៍ជាលក្ខណៈបុគ្គល។ ចម្លើយសម្ភាសន៍របស់អ្នកចូលរួមទាំង៩០នាក់ ត្រូវបានប្រមូលសម្រាប់ទិន្នន័យគុណវិស័យ ដើម្បីសិក្សាល្វេងយល់ពីទស្សនៈនិងបញ្ហាប្រឈមរបស់គ្រូបង្រៀននិងសិស្សចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល នៅកម្រិតវិទ្យាល័យនៅកម្ពុជា។

៣.៤ ការវិភាគទិន្នន័យ

កម្រងសំណួរនិងសម្ភាសន៍ផ្ទាល់ត្រូវបានធ្វើការវិភាគសម្រាប់ការបកស្រាយលទ្ធផលស្រាវជ្រាវ។ ការវិភាគនៃកម្រងសំណួរ ត្រូវបានប្រើប្រាស់ដោយការវិភាគបែបពណ៌នាស្ថិតិ ដើម្បីសិក្សាល្វេងយល់ពីផលជះនៃបរិវត្តកម្មនៃការអប់រំឌីជីថលលើដំណើរការបង្រៀននិងរៀននៅកម្រិតវិទ្យាល័យនៅកម្ពុជា។

ទិន្នន័យបរិមាណវិស័យត្រូវបានវិភាគដោយការប្រើប្រាស់ប្រព័ន្ធ SPSS ដើម្បីសិក្សាពីកម្រិតមធ្យមពិន្ទុនៃសម្មតិកម្មនីមួយៗ។ ផ្ទុយទៅវិញ ការវិភាគនៃសម្ភាសន៍ផ្ទាល់ ត្រូវបានប្រើប្រាស់ដោយការវិភាគបែបពណ៌នា ដើម្បីសិក្សាល្វេងយល់ពីទស្សនៈ និងបញ្ហាប្រឈមរបស់គ្រូបង្រៀននិងសិស្សានុសិស្សចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល នៅកម្រិតវិទ្យាល័យក្នុងប្រទេសកម្ពុជា។

៣.៥ ក្រមសីលធម៌នៃការស្រាវជ្រាវ

ក្រមសីលធម៌នៃការស្រាវជ្រាវ ត្រូវបានបង្ហាញដោយការផ្តល់នូវសុវត្ថិភាពបុគ្គលលើបុគ្គលភាពនិងអត្តសញ្ញាណរបស់អ្នកចូលរួមក្នុងការស្រាវជ្រាវនេះ។ ក្នុងន័យនេះ ក្រមសីលធម៌របស់អ្នកស្រាវជ្រាវត្រូវរក្សានូវសុវត្ថិភាពបុគ្គលដល់អ្នកចូលរួមប្រកបដោយគុណភាពនិងប្រសិទ្ធភាព។ ដូច្នេះ ការសិក្សាស្រាវជ្រាវមួយប្រព្រឹត្តទៅបានល្អ ដែលតម្រូវឱ្យមានការបង្ហាញពីវិធីសាស្ត្រស្រាវជ្រាវ ឧបករណ៍ ប្រមូលទិន្នន័យច្បាស់លាស់ វិធីសាស្ត្រប្រមូលទិន្នន័យ និងវិធីសាស្ត្រវិភាគទិន្នន័យសមស្រប និងក្រមសីលធម៌នៃការស្រាវជ្រាវ។

៤. លទ្ធផលស្រាវជ្រាវ និងការពិភាក្សា

៤.១ ទស្សនៈគ្រូបង្រៀននិងសិស្សចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល

យោងតាមទស្សនៈរបស់គ្រូបង្រៀន នៅកម្រិតវិទ្យាល័យចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល «កម្មវិធីអឡិចត្រូនិក» ត្រូវបានចាត់ទុកជាប្រព័ន្ធឌីជីថលដែលត្រូវបានប្រើប្រាស់សម្រាប់ការបង្រៀន។ គ្រូបង្រៀនបានបង្ហាញថា ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលរួមមាន «កុំព្យូទ័រ ស្ថាតហ្វុន និងថេបលេត»។ ជាមួយគ្នានេះ គ្រូបង្រៀនបានលើកឡើងថា «ការផ្លាស់ប្តូរនៃបច្ចេកវិទ្យា»ក្នុងយុគសម័យទំនើបនេះ បានជួយឱ្យគ្រូបង្រៀនមានឱកាសអភិវឌ្ឍមត៌ភាពឌីជីថលក្នុងការបង្រៀន។ យោងតាមលទ្ធផលស្រាវជ្រាវ គ្រូបង្រៀនបានបង្ហាញពី ការប្រើប្រាស់បច្ចេកវិទ្យាដើម្បីជាជំនួយដល់«ការអប់រំឌីជីថល»។ គ្រូបង្រៀនបានបញ្ជាក់បន្ថែមថា ការផ្លាស់ប្តូរប្រព័ន្ធអប់រំដោយការប្រើប្រាស់ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថល ជាដំណើរការធ្វើ«បរិវត្តកម្មនៃការអប់រំឌីជីថល»។ លទ្ធផលស្រាវជ្រាវបានបង្ហាញថា គ្រូបង្រៀនគប្បីមាន «សមត្ថភាពឌីជីថល»គ្រប់គ្រាន់ក្នុងការបង្រៀនក្នុងបរិបទនៃការអប់រំសតវត្សរ៍ទី២១ និងគួរតែមាន «ជំនាញបច្ចេកវិទ្យាឌីជីថល»ក្នុងការបង្រៀន។ យោងតាមទស្សនៈគ្រូបង្រៀន បរិវត្តកម្មនៃការអប់រំឌីជីថលបានផ្តល់នូវផលជះច្រើនដល់ដំណើរការបង្រៀន រួមមាន«ភាពងាយស្រួលក្នុងការបង្រៀន ការអភិវឌ្ឍវិធីសាស្ត្របង្រៀន និងការលើកកម្ពស់គុណភាព និងការធានាប្រសិទ្ធភាពនៃការបង្រៀន»។

យោងតាមទស្សនៈរបស់សិស្សនៅកម្រិតវិទ្យាល័យចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល «អេឡិចត្រូនិក» ជាប្រព័ន្ធឌីជីថលដែលត្រូវបានប្រើប្រាស់សម្រាប់ការរៀន។ សិស្សបានបង្ហាញទៀតថា ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលរួមមាន «ទូរស័ព្ទ កុំព្យូទ័រ ស្ថាតហ្វូន ហ្សូម និង តេលេក្រាម»។ សិស្សានុសិស្សបានលើកឡើងថា «ដំណើរការផ្លាស់ប្តូរនៃបច្ចេកវិទ្យា» ក្នុងយុគសម័យទំនើបបានជួយឱ្យសិស្សានុសិស្សមានឱកាសអភិវឌ្ឍសមត្ថភាពឌីជីថលក្នុងការសិក្សា។ យោងតាមលទ្ធផលស្រាវជ្រាវសិស្សានុសិស្សបានបង្ហាញពីការប្រើប្រាស់ប្រព័ន្ធបច្ចេកវិទ្យាសម្រាប់«ការអប់រំឌីជីថល»។ សិស្សានុសិស្សបានបញ្ជាក់បន្ថែមថាការប្រើប្រាស់បច្ចេកវិទ្យាឌីជីថល«ការផ្លាស់ប្តូរប្រព័ន្ធអប់រំឌីជីថល»។ លទ្ធផលស្រាវជ្រាវបានបង្ហាញថា សិស្សានុសិស្សគ្រប់ៗគ្នាមាន«ការអភិវឌ្ឍសមត្ថភាពឌីជីថល»ក្នុងការសិក្សាក្នុងបរិបទនៃការអប់រំសតវត្សរ៍ទី ២១ និង «ជំនាញបច្ចេកវិទ្យាឌីជីថល» ក្នុងការសិក្សា។ យោងតាមទស្សនៈសិស្សានុសិស្ស បរិវត្តកម្មនៃការអប់រំឌីជីថលបានផ្តល់នូវផលជះដល់ដំណើរការរៀនរួមមាន «ភាពងាយស្រួលក្នុងការសិក្សា ការអភិវឌ្ឍវិធីសាស្ត្ររៀន និងការលើកកម្ពស់គុណភាព និងការធានាប្រសិទ្ធភាពនៃការសិក្សា»។

ការពិភាក្សា

យោងតាមលទ្ធផលស្រាវជ្រាវបានបង្ហាញខាងលើ មានការលើកឡើងនូវទស្សនៈស្រដៀងគ្នាៗថា បរិវត្តកម្មនៃការអប់រំឌីជីថល(ហង់ ជួន ២០២១) បានរួមចំណែកក្នុងការអភិវឌ្ឍការអប់រំដោយការប្រើប្រាស់ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលក្នុងការអប់រំសតវត្សរ៍ទី២១ ការអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងរៀន និងជាបេសកកម្មមួយសំខាន់សម្រាប់គ្រឹះស្ថានអប់រំ (Dirk et al., 2021) ដើម្បីធ្វើកំណែទម្រង់កម្មវិធីសិក្សានិងអភិវឌ្ឍគុណភាពអប់រំនៅកម្ពុជា។ ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលដូចជា Wiki School, E-school, Facebook, Google Meet, Zoom, etc. ត្រូវបានប្រើប្រាស់ក្នុងបរិបទនៃការអប់រំឌីជីថល ដើម្បីជួយឱ្យគណៈគ្រប់គ្រង គ្រូបង្រៀន និងសិស្ស និស្សិតអភិវឌ្ឍវិធីសាស្ត្រគ្រប់គ្រង បង្រៀន និងរៀន ជាពិសេសការគ្រប់គ្រងរដ្ឋបាល ពេលវេលា និងវិស័យអប់រំ។ ការអភិវឌ្ឍកម្មវិធីសិក្សាឌីជីថលគ្រប់កម្រិតកូមិសិក្សាជាផ្នែកមួយនៃការធានាគុណភាពអប់រំនៅកម្ពុជា ជាពិសេស គុណភាពបង្រៀននិងរៀន។ ដូច្នេះ បរិវត្តកម្មនៃការអប់រំឌីជីថលបង្កើនចំណេះដឹង និងសមត្ថភាពឌីជីថលរបស់គ្រូបង្រៀន និងសិស្សានុសិស្ស លើកកម្ពស់គុណភាពបង្រៀននិងរៀន និងធ្វើកំណែទម្រង់វិស័យអប់រំ។

៤.២ បញ្ហាប្រឈមរបស់គ្រូបង្រៀននិងសិស្សចំពោះបរិវត្តកម្មនៃការអប់រំឌីជីថល

លទ្ធផលស្រាវជ្រាវបានបង្ហាញថា គ្រូបង្រៀនភាគច្រើនមិនសូវមានចំណេះដឹងលើ «ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលក្នុងដំណើរការបង្រៀន»។ គ្រូបង្រៀននៅតាមវិទ្យាល័យគោលដៅនៃការប្រមូលទិន្នន័យក្នុងខេត្តទាំង៥បានលើកឡើងពីបញ្ហានៃការយល់ដឹងលើការប្រើប្រាស់បច្ចេកវិទ្យាឌីជីថលសម្រាប់ «ការអប់រំ»។ យោងតាមលទ្ធផលស្រាវជ្រាវ គ្រូបង្រៀនភាគច្រើនមិនបានយល់ដឹងស៊ីជម្រៅពីបរិវត្តកម្មនៃការអប់រំឌីជីថលដើម្បី «អភិវឌ្ឍវិធីសាស្ត្របង្រៀន»។ គ្រូបង្រៀនមួយចំនួនមិនសូវមាន «ជំនាញបច្ចេកវិទ្យាឌីជីថលក្នុងការបង្រៀន»។ គ្រូបង្រៀននៅតាមវិទ្យាល័យគោលដៅ នៃការប្រមូលទិន្នន័យមិនមាន «សមត្ថភាពឌីជីថល» គ្រប់គ្រាន់សម្រាប់ការអភិវឌ្ឍវិធីសាស្ត្រ និងគុណភាពបង្រៀន។

លទ្ធផលស្រាវជ្រាវបានបង្ហាញទៀតថា សិស្សានុសិស្សភាគច្រើនមិនមានចំណេះដឹង «បច្ចេកវិទ្យាឌីជីថល»ក្នុងដំណើរការសិក្សា។ សិស្សានុសិស្សមួយចំនួននៅតាមវិទ្យាល័យគោលដៅនៃការប្រមូលទិន្នន័យមិនបានយល់ស៊ីជម្រៅពីការប្រើប្រាស់បច្ចេកវិទ្យាឌីជីថលក្នុង «ការអប់រំឌីជីថល»។ យោងតាមលទ្ធផលស្រាវជ្រាវ សិស្សានុសិស្សមិនបានយល់ស៊ីជម្រៅអំពីបរិវត្តកម្មនៃការអប់រំឌីជីថល ដើម្បីអភិវឌ្ឍ «វិធីសាស្ត្រសិក្សា»និងមិនមាន«ជំនាញបច្ចេកវិទ្យាឌីជីថល» ច្បាស់លាស់សម្រាប់ការសិក្សា។ លទ្ធផលស្រាវជ្រាវបានបង្ហាញថា សិស្សានុសិស្សមិនមាន «ចំណេះដឹងនិងសមត្ថភាពឌីជីថល» គ្រប់គ្រាន់ដើម្បីអភិវឌ្ឍគុណភាពសិក្សា។

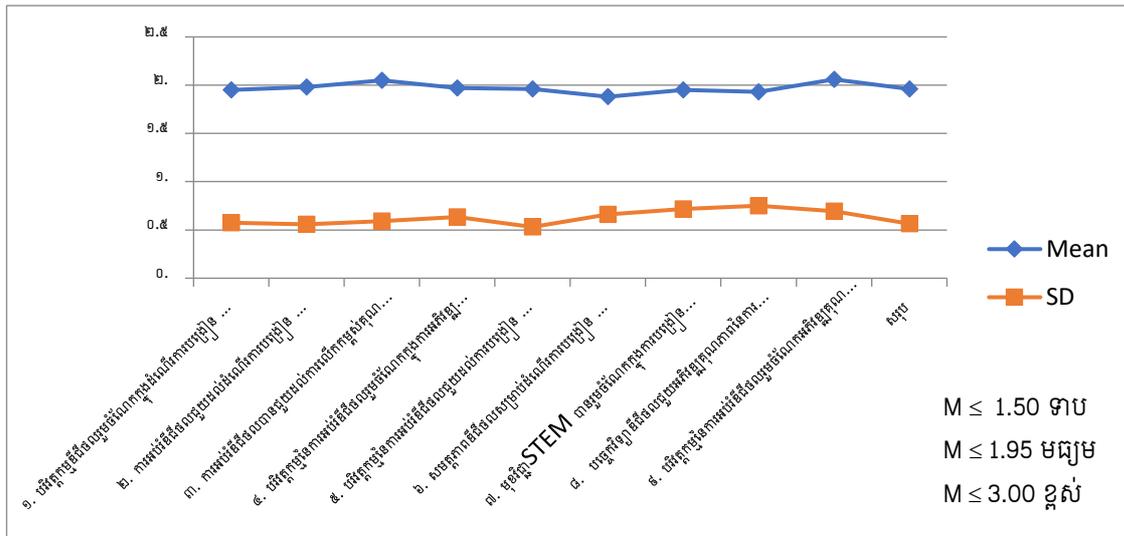
ការពិភាក្សា

យោងតាមលទ្ធផលស្រាវជ្រាវខាងលើ គ្រូបង្រៀន និងសិស្សានុសិស្សភាគច្រើនមានបញ្ហាប្រឈមមួយចំនួនដូចជា ចំណេះដឹងបច្ចេកវិទ្យាព័ត៌មានវិទ្យា សមត្ថភាព និងជំនាញបច្ចេកវិទ្យាឌីជីថល។ ការធ្វើបរិវត្តកម្មឌីជីថល មានសារៈសំខាន់ណាស់សម្រាប់ការអភិវឌ្ឍវិស័យអប់រំជាបន្តបន្ទាប់ក្នុងការអភិវឌ្ឍធនធានមនុស្សនិងប្រទេសជាតិ។ ការអភិវឌ្ឍសមត្ថភាពឌីជីថល (Parlak, 2017) ជួយឱ្យគ្រូបង្រៀននិងសិស្សានុសិស្សអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងរៀន។ ការធ្វើបរិវត្តកម្មឌីជីថល ក្នុងការអប់រំ (Balyer & Öz, 2018) ជួយសម្រួលដល់ការគ្រប់គ្រងរដ្ឋបាលអប់រំ ហិរញ្ញវត្ថុ ធនធានមនុស្ស ការបង្រៀននិងការសិក្សា។ ការអភិវឌ្ឍជំនាញបច្ចេកវិទ្យាឌីជីថលបានដើរតួនាទីសំខាន់ណាស់ក្នុងការអភិវឌ្ឍគុណភាពបង្រៀននិងរៀន ការធ្វើកំណែទម្រង់វិស័យអប់រំ ការកែលម្អ និងអភិវឌ្ឍគុណភាពអប់រំនិងការអភិវឌ្ឍធនធានមនុស្ស។ ដូច្នេះ ក្នុងការអប់រំសតវត្សន៍ទី២១ ការអភិវឌ្ឍចំណេះដឹង សមត្ថភាពនិងជំនាញលើបច្ចេកវិទ្យាឌីជីថលរបស់គ្រូបង្រៀននិងសិស្សានុសិស្ស ជួយរួមចំណែកក្នុងការកែលម្អ

ការអប់រំឌីជីថល ការធ្វើកំណែទម្រង់វិស័យអប់រំឌីជីថល ព្រមទាំងការលើកកម្ពស់និងអភិវឌ្ឍគុណភាពអប់រំឌីជីថល។

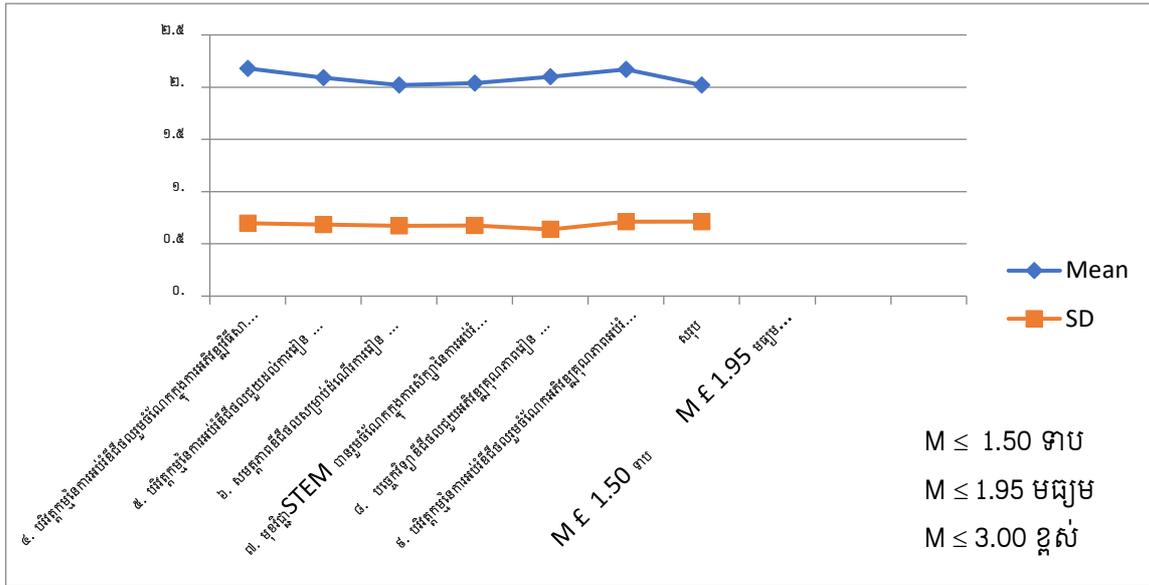
៤.៣ ផលជះនៃបរិក្ខមនៃការអប់រំឌីជីថលលើការបង្រៀននិងរៀន

ក្រាហ្វិក១បានបកស្រាយអំពីផលជះនៃបរិក្ខមនៃការអប់រំឌីជីថលលើដំណើរការបង្រៀននៅកម្រិតវិទ្យាល័យ។ លទ្ធផលស្រាវជ្រាវបានបង្ហាញថា បរិក្ខមនៃការអប់រំឌីជីថលបានរួមចំណែកក្នុងដំណើរការបង្រៀនកម្រិតមធ្យម ($M = ១.៩៥, SD = ០.៥៧៦$)។ ការអប់រំឌីជីថលបានជួយផ្តល់នូវភាពងាយស្រួលដល់ដំណើរការបង្រៀនរបស់គ្រូបង្រៀនបានកម្រិតខ្ពស់ ($M = ១.៩៨, SD = ០.៥៥៧$)។ ការអប់រំឌីជីថលបានជួយលើកកម្ពស់គុណភាពអប់រំនៅកម្ពុជាខ្លាំង ($M = ២.០៥, SD = ០.៥៩០$)។ យោងតាមលទ្ធផលស្រាវជ្រាវ ដែលបានបកស្រាយក្នុងក្រាហ្វិក១ បរិក្ខមនៃការអប់រំឌីជីថលចូលរួមចំណែកក្នុងការអភិវឌ្ឍវិធីសាស្ត្របង្រៀនបានកម្រិតខ្ពស់ ($M = ១.៩៧, SD = ០.៦៣៣$)។ បរិក្ខមនៃការអប់រំឌីជីថលបានជួយដល់ការបង្រៀនក្នុងកម្រិតខ្ពស់ ($M = ១.៩៦, SD = ០.៥៣១$)។ លទ្ធផលបានបង្ហាញថា បរិក្ខមនៃការអប់រំឌីជីថលបានជួយឱ្យគ្រូបង្រៀនអភិវឌ្ឍសមត្ថភាពឌីជីថលសម្រាប់ការបង្រៀនបានកម្រិតមធ្យម ($M = ១.៨៨, SD = ០.៦៦២$)។ ក្រាហ្វិក១ បានបង្ហាញថា មុខវិជ្ជាសិក្សា STEM បានរួមចំណែកក្នុងការបង្រៀនការអប់រំឌីជីថលបានកម្រិតមធ្យម ($M = ១.៩៥, SD = ០.៧៥១$)។ លទ្ធផលនៃការស្រាវជ្រាវបានបង្ហាញថា បច្ចេកវិទ្យាឌីជីថលបានជួយអភិវឌ្ឍគុណភាពនៃការបង្រៀនកម្រិតមធ្យម ($M = ១.៩៣, SD = ០.៧៥១$)។ យោងតាមលទ្ធផលដែលបានបកស្រាយក្នុងក្រាហ្វិក១ បរិក្ខមនៃការអប់រំឌីជីថលបានរួមចំណែកអភិវឌ្ឍគុណភាពអប់រំនៅកម្ពុជាក្នុងកម្រិតខ្ពស់ ($M = ២.០៦, SD = ០.៦៩៤$)។ ជារួម បរិក្ខមនៃការអប់រំឌីជីថលបានផ្តល់នូវអត្ថប្រយោជន៍ដល់គ្រូបង្រៀនក្នុងការអភិវឌ្ឍវិធីសាស្ត្របង្រៀន គុណភាពបង្រៀន និងសមត្ថភាពឌីជីថលគ្រូបង្រៀន និងរួមចំណែកក្នុងការលើកកម្ពស់ និងអភិវឌ្ឍគុណភាពអប់រំក្នុងកម្រិតខ្ពស់ ($M = ១.៩៦, SD = ០.៥៦៦$)។



ក្រាហ្វិក១ ផលជះនៃបរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលលើដំណើរការបង្រៀន

ក្រាហ្វិក២ បានបកស្រាយអំពីផលជះនៃបរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលលើការសិក្សារបស់សិស្សានុសិស្សនៅកម្រិតវិទ្យាល័យ។ បរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលបានរួមចំណែកក្នុងដំណើរការសិក្សារបស់សិស្សានុសិស្សក្នុងកម្រិតខ្ពស់ ($M = 10.03, SD = 0.913$)។ លទ្ធផលស្រាវជ្រាវបានបង្ហាញថាការអប់រំឌីជីថលបានជួយដល់ដំណើរការសិក្សារបស់សិស្សានុសិស្សបានកម្រិតខ្ពស់ ($M = 10.07, SD = 0.693$)។ សិស្សានុសិស្សបានបកស្រាយថា ការអប់រំឌីជីថលបានជួយដល់ការលើកកម្ពស់គុណភាពអប់រំនៅកម្ពុជាក្នុងកម្រិតខ្ពស់ ($M = 10.14, SD = 0.663$)។ យោងតាមលទ្ធផលដែលបានបង្ហាញក្នុងក្រាហ្វិក២ បរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលបានចូលរួមចំណែកក្នុងការអភិវឌ្ឍវិធីសាស្ត្រសិក្សារបស់សិស្សកម្រិតខ្ពស់ ($M = 10.18, SD = 0.696$)។ បរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលបានជួយដល់ការសិក្សារបស់សិស្សក្នុងកម្រិតខ្ពស់ ($M = 10.09, SD = 0.684$)។ បរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលបានជួយសិស្សានុសិស្សអភិវឌ្ឍសមត្ថភាពឌីជីថលសម្រាប់ដំណើរការសិក្សាក្នុងកម្រិតខ្ពស់ ($M = 10.02, SD = 0.679$)។ ក្រាហ្វិក២ បានបកស្រាយថា មុខវិជ្ជាសិក្សា STEM បានរួមចំណែកក្នុងការសិក្សានៃការអប់រំឌីជីថលក្នុងកម្រិតខ្ពស់ ($M = 10.04, SD = 0.676$)។ ក្នុងបរិបទនៃបរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលបច្ចេកវិទ្យាឌីជីថលបានជួយឱ្យសិស្សអភិវឌ្ឍគុណភាពសិក្សាខ្លាំង ($M = 10.10, SD = 0.638$)។ លទ្ធផលស្រាវជ្រាវបានបង្ហាញថា បរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលបានរួមចំណែកក្នុងការអភិវឌ្ឍគុណភាពអប់រំនៅកម្ពុជាក្នុងកម្រិតខ្ពស់ ($M = 10.17, SD = 0.712$)។ បរិក្ខារកុំព្យូទ័រនៃការអប់រំឌីជីថលបានផ្តល់នូវអត្ថប្រយោជន៍ជាច្រើនដល់សិស្សក្នុងការអភិវឌ្ឍវិធីសាស្ត្ររៀន គុណភាពសិក្សា និងសមត្ថភាពឌីជីថលនិងរួមចំណែកក្នុងការលើកកម្ពស់និងអភិវឌ្ឍគុណភាពអប់រំក្នុងកម្រិតខ្ពស់ ($M = 9.96, SD = 0.566$)។



ក្រាហ្វិក ២ ផលជះនៃបរិក្ខេបនៃការអប់រំឌីជីថលលើការសិក្សារបស់សិស្ស

ការពិភាក្សា

យោងតាមលទ្ធផលស្រាវជ្រាវខាងលើ គ្រូបង្រៀន និងសិស្សានុសិស្សភាគច្រើនបានផ្លាស់ប្តូរ ឥរិយាបថច្រើនទៅលើការប្រើប្រាស់ប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលក្នុងដំណើរការបង្រៀននិងរៀន។ នាយក សាលាមានការផ្លាស់ប្តូរនូវប្រព័ន្ធរដ្ឋបាលគ្រប់គ្រងពីការគ្រប់គ្រងធម្មតា ទៅជាប្រព័ន្ធរដ្ឋបាលគ្រប់គ្រង ឌីជីថល។ សាលារៀនមានការផ្លាស់ប្តូរនូវប្រព័ន្ធអប់រំធម្មតា ទៅជាប្រព័ន្ធអប់រំឌីជីថលដោយការអនុវត្ត បែបសាលាធនធាន និងសាលារៀនជំនាន់ថ្មី។ ការធ្វើបរិក្ខេបនៃការអប់រំជួយឱ្យគ្រូបង្រៀន សិស្សានុសិស្ស នាយកសាលា និងសាលារៀន មានការអភិវឌ្ឍវិធីសាស្ត្របង្រៀន វិធីសាស្ត្រសិក្សា ការគ្រប់គ្រងរដ្ឋបាល ហិរញ្ញវត្ថុ និងធនធានមនុស្ស ការបណ្តុះបណ្តាល និងគ្រប់គ្រងធនធានមនុស្ស និងការធ្វើកំណែទម្រង់គុណភាពអប់រំ។ បរិក្ខេបនៃការអប់រំមានសារៈសំខាន់ណាស់ សម្រាប់ការ បណ្តុះបណ្តាល ជាពិសេស ការអប់រំដើម្បីជួយអភិវឌ្ឍសមត្ថភាពឌីជីថលរបស់គ្រូបង្រៀននិងសិស្ស និងនាយកសាលា (Paulo, 2020) ប្រកបដោយភាពងាយស្រួលក្នុងការវាយតម្លៃ និងគ្រប់គ្រង ព័ត៌មាន ឬទិន្នន័យ និងការចែករំលែកនូវព័ត៌មានក្នុងដំណើរការបង្រៀននិងរៀន។ បរិក្ខេបនៃការអប់រំ ឌីជីថលផ្តល់នូវឱកាសដល់គ្រូបង្រៀន សិស្សានុសិស្ស និងនាយកសាលាអភិវឌ្ឍចំណេះដឹង និង ជំនាញបច្ចេកវិទ្យាឌីជីថល (NV, 2017) ដើម្បីរួមចំណែកក្នុងការលើកកម្ពស់គុណភាពអប់រំឌីជីថល និងអភិវឌ្ឍធនធានមនុស្ស។ បរិក្ខេបនៃការអប់រំគឺជួយពង្រឹងនិងអភិវឌ្ឍគុណភាពអប់រំ ដោយការរួមបញ្ចូលគ្នានៃបច្ចេកវិទ្យាឌីជីថលនិងការអប់រំបែបបុរាណ។ បរិក្ខេបនៃការអប់រំ មានតួនាទីសំខាន់ក្នុងការលើកកម្ពស់ និងអភិវឌ្ឍគុណភាពការបង្រៀននិងរៀន ជាពិសេស ការអភិវឌ្ឍ

គុណភាពអប់រំឌីជីថល។ ដូច្នោះ បរិវត្តកម្មឌីជីថលនៃការអប់រំផ្តល់នូវអត្ថប្រយោជន៍ច្រើនដល់ដំណើរការអប់រំឌីជីថលរួមមាន ការអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងរៀន (ឧទាហរណ៍: Distance Teaching & Learning, E-Teaching and learning, Digital Teaching & Learning) ការអភិវឌ្ឍសមត្ថភាពនិងជំនាញឌីជីថលរបស់គ្រូបង្រៀន នាយកសាលា និងសិស្ស ការធ្វើកំណែទម្រង់កម្មវិធីសិក្សា និងការអភិវឌ្ឍគុណភាពអប់រំឌីជីថល។

៥. សេចក្តីសន្និដ្ឋាន និងអនុសាសន៍

៥.១ សេចក្តីសន្និដ្ឋាន

ការស្រាវជ្រាវនេះបានសិក្សាអំពីបរិវត្តកម្មនៃការអប់រំឌីជីថល ដើម្បីអភិវឌ្ឍវិធីសាស្ត្របង្រៀននិងរៀន កែលម្អនិងលើកកម្ពស់គុណភាពអប់រំឌីជីថល និងធានាគុណភាព និងប្រសិទ្ធភាពនៃការអប់រំឌីជីថល។ ការសិក្សាស្រាវជ្រាវនេះ បានបង្ហាញថា គ្រូបង្រៀន និងសិស្សានុសិស្សមានបញ្ហាមួយចំនួនចំពោះការប្រើប្រាស់បច្ចេកវិទ្យាឌីជីថលក្នុងការអភិវឌ្ឍវិធីសាស្ត្របង្រៀន វិធីសាស្ត្ររៀន ចំណេះដឹងសមត្ថភាព និងជំនាញឌីជីថល ដើម្បីជាការឆ្លើយតបទៅនឹងការធ្វើកំណែទម្រង់វិស័យអប់រំ ការកែលម្អកម្មវិធីសិក្សា ការលើកកម្ពស់គុណភាពអប់រំឌីជីថល និងការធានាប្រសិទ្ធភាពនៃការអប់រំឌីជីថល និងដើម្បីឆ្លើយតបទៅនឹងតម្រូវការទីផ្សារការងារជាតិ តំបន់ និងអន្តរជាតិ។ ជាពិសេស ការសិក្សានេះបានផ្តល់នូវអត្ថប្រយោជន៍ជាច្រើនដល់ការអប់រំឌីជីថលរួមមាន ការអភិវឌ្ឍវិធីសាស្ត្របង្រៀន និងរៀន ការអភិវឌ្ឍសមត្ថភាព និងជំនាញឌីជីថល និងការអភិវឌ្ឍគុណភាពអប់រំឌីជីថល។ ដូច្នោះ បរិវត្តកម្មឌីជីថលនៃការអប់រំជួយពង្រឹងគុណភាពអប់រំឌីជីថល ការអភិវឌ្ឍសមត្ថភាពឌីជីថល និងការរួមបញ្ចូលគ្នានៃប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលជាមួយនឹងការបង្រៀន និងរៀនបែបប្រពៃណី។

៥.២ អនុសាសន៍

ដើម្បីរួមចំណែកក្នុងការកែលម្អកម្មវិធីសិក្សា និងការលើកកម្ពស់គុណភាពអប់រំឌីជីថល ក្រសួងអប់រំ យុវជន និងកីឡាគួរតែបើកវគ្គបណ្តុះបណ្តាលគ្រូបង្រៀន សិស្ស និងនាយកសាលាស្តីពីប្រព័ន្ធបច្ចេកវិទ្យាឌីជីថលក្នុងដំណើរការបង្រៀន សិក្សា និងគ្រប់គ្រងរដ្ឋបាលឌីជីថល ជាពិសេស វគ្គសិក្ខាសាលាស្តីពីការអប់រំឌីជីថលនិងបំណិនវិជ្ជាជីវៈគ្រូបង្រៀនក្នុងសតវត្សរ៍ទី២១។

ឯកសារយោង

បណ្ឌិតសភាចារ្យ ហង់ជួន ណ. (២០២១). *បរិវត្តកម្មឌីជីថលនៃការអប់រំ*. ក្រសួងអប់រំ យុវជន និងកីឡា

ឧត្តមក្រុមប្រឹក្សាសេដ្ឋកិច្ចជាតិ (២០២១). *ក្របខណ្ឌគោលនយោបាយសេដ្ឋកិច្ច និងសង្គមឌីជីថលកម្ពុជា ២០២១-២០៣៥*. ឧត្តមក្រុមប្រឹក្សាសេដ្ឋកិច្ចជាតិ

Alenezi, M. (2021). Deep Dive into Digital Transformation in Higher Education Institutions. *Education Science*, 1-13, <https://doi.org/10.3390/educsci11120770> <https://www.mdpi.com/journal/education>

Balyer, A., & Öz, Ö. (2018). Academicians’ views on digital transformation in education. *international Online Journal of Education and Teaching (IOJET)*, Vol. 5(4), 809-830

Bates, T. (2015). Teaching in a digital age: Guidelines for designing teaching and learning for a digital age. Retrieved on February 16, 2018 from <https://opentextbc.ca/teachinginadigitalage/>

Biecek, P., & Burzykowski, T. (2021). *Explanatory Model Analysis: Explore, Explain, and Examine Predictive Models*. Chapman and Hall/CRC

Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of Qualitative Research*. Thousand Oaks, CA: SAGE

Dirk, I., Sandra, H., Marc, E., & Christian, H. (2021). Digital Transformation of Learning Organizations. Springer OPEN, <https://doi.org/10.1007/978-3-030-55878-9>

Forrester. (2016) Leading Digital Business Transformation. [Online] Forrester Research, Inc. [20Oct2017] Available: <https://www.imd.org/ldbdt/digital-business-transformation/>

Graesser, A. C., & McMahan, C. L. (1993). Anomalous information triggers questions when adults solve quantitative problems and comprehend stories. *Journal of Educational Psychology*, 85, 136–151

Hsieh, H. F., & Shannon, S. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, 15 (9), 1277-1288. DOI: 10.1177/104973230 5276687

IDC. (2015) Digital Transformation (DX): An Opportunity and an Imperative. [Online] IDCResearch. [20Oct2017] Available: https://www.idc.com/prodserv/decisionscapes/RESOURCES/ATTACHMENTS/IDC_254721_ExecBrief_Digital_Transformation.pdf

Ivankova, N. V., & Creswell, J. W. (2009). *Mixed methods*. In J. Heigham & R. A. Croker (Eds.), *Qualitative Research in Applied Linguistics: a Practical Introduction (135-161)*. New York: Palgrave Macmillan

Lennon, P. (1990). Investigating fluency in EFL: A Quantitative Approach. *Language Learning*, 40(3), 387 - 417

Masadeh, M. A. (2012). Focus Group: Reviews and Practices. *International Journal of Applied Science and Technology*, 2(10), 63-68

NV. (2017) Digital Transformation in Higher Education. [Online] Navitas Ventures. [20Oct2017] Available: https://www.navitasventures.com/wp-content/uploads/2017/08/HE-Digital-Transformation-_Navitas_Ventures_-EN.pdf

OECD. (2017) Key Issues for Digital Transformation in The G20. OECD

Parlak, B. (207). Dijital çağda eğitim: Olanaklar ve uygulamalar üzerine bir analiz [Education in Digital Age: An analysis on opportunities and practices]. Süleyman Demirel

- University, Journal of Faculty of Economics and Administrative Sciences, Vol. 22(15), 1741-1759
- Paulo, S. (2020). A System Approach to Digital Education. UNICEF-Timor-Leste, Conference Reimagine Education: ICT & Innovation in Timor-Leste
- Paunescu, C., Lepik, K. L., & Spencer, N. (2022). Social Innovation in Higher Education. Springer, Open Access, Open Access: <http://creativecommons.org/licenses/by/4.0/>
- Raab, M., & Griffin-Cryan, B. (2011) Digital Transformation of Supply Chains: Creating Value –When Digital Meets Physical: Capgemini Consulting
- Silva, L. (2017). Challenges of Digital Transformation in Higher Education Institutions: A brief discussion. ResearchGate, Conference paper, <https://www.researchgate.net/publication/330601808>
- Sisman, M. (2016). *Eğitim bilimlerine giriş [Introduction to educational sciences]*, Ankara: Pegem Academy Publications.
- Taşkıran, A. (2017). Dijital çağda yükseköğretim [Higher education in the digital age] *ournal of open education practice and research*, Vol. (1), 96-109
- Yureva, O. V., Burganova, L. A., Kukushkina, O. Y., Myagkov, G. P., & Syradoev, D. V. (2020). Digital Transformation and Its Risks in Higher Education: Students' and Teachers' Attitude. *Universal Journal of Educational Research*, 8(11B), 5965 - 5971. DOI: 10.13189/ujer.2020.082232



Ministry of Education, Youth and Sport
Department of Policy

Article

Current Situation and Components Lifelong Learning Attitudes of Community People in Community Learning Centers in Cambodia

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Abstract

In the 21st contemporary era, it is a world of constant changes and challenges. Likewise, without continuous learning and upgrading our knowledge, we will lose a lot of benefits in terms of employment, health, security, and just to name a few. Hence, this paper aims to study the current situation and components of the lifelong learning attitudes of community people in community learning centers in Cambodia. To attain this research objective, the qualitative research method has been employed by conducting a semi-structured interview with Cambodian experts in the field of informal and non-formal education. To ensure the credibility of data collection, the researcher used triangulation by using various research techniques such as interviewing, observation, and document analysis. The research finding has demonstrated that the current situation of lifelong learning attitudes of community people in community learning centers is quite low and limited because of Cambodian's shattered education system, lack of community participation, and knowledge of the significance of lifelong learning. There are some components of community people's lifelong learning attitudes in community learning centers in Cambodia. Those lifelong learning attitudes are self-directed learners, self-direction, self-planned learners, located information, self-evaluation, self-awareness, and adaptive learning strategies. Moreover, these research results implied that there should be proper guidelines, mechanisms, and policies to enhance the lifelong learning attitudes of community people in community learning centers in Cambodia.

Keywords: *Lifelong learning attitudes, community people, community learning centers
lifelong learning and non-formal education*

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1. Introduction

In the 21st century, everything continually changes, which brings two edged-sword faces -positive and negative impacts. In this manner, human beings have to keep learning and upgrading their knowledge to stay on track with this fast-changing world (UNESCO, 2016). They will lose a lot of benefits and advantages if they cannot keep learning and improving their knowledge and skills. For instance, in the outbreak of Coronavirus Diseases (Covid-19) at the end of 2019, everyone has no choice but to change their habits and ways of life to practice social distancing (Baloch, Baloch, Zheng, & Pei, 2020). Mainly, a formal education system can perform its functions well; so, distance and blended learning have a crucial role in bridging this gap. Lifelong learning is a fundamental component to provide everyone with continuing education at any time, in any place, and any situation (Ilin, 2019).

According to Brockett and Hiemstra (1991), sustainable development goals 4 stated “Ensure inclusive and quality education and promote lifelong learning opportunities for all (Global Monitoring Report 2005, 2004),” lifelong learning is one of the main driving factors to attain this goal. This same is true for the Cambodian context, the formal education system is limited, and a novice to tailor inclusive and quality education. For instance, based on the socio-economic survey which has conducted in 2013 by the Ministry of Planning shown that the total adult literacy rate aged 15 and above was 80.70% of which male literacy rate was 87.70% and female 74.4% (CSCE, 2013). Notably, 97% was counted as net enrollment of primary school in the last ten years, and only 80% among those enrolled completed primary school. Nearly 40% finished secondary school, and 20% completed upper secondary school (Royal Government of Cambodia, 2019b). In this sense, there is a considerable number of people who are out of the schooling system. However, the Royal Government of Cambodia has never relentless in putting the concerting efforts to foster education in Cambodia by enacting many policies, laws, and guidelines. To fill the bottlenecks of formal education, the Ministry of Education, Youth, and Sports in collaboration with the Ministry of Labor and Vocational Training in leading non-formal, informal teaching and lifelong learning (Royal Government of Cambodia, 2009). Notably, lifelong learning in Cambodia exists mostly in the form of informal and non-formal education by implementing through community learning centers (Department of Non-Formal Education, 2018b). The target group is community people, who are living surround community learning centers. It is vital to digest the understanding regarding the lifelong learning attitude of community people because those Cambodian people are the leading market labor forces to develop the Cambodian economy. In the life of studying the lifelong learning attitude of community people, particularly in community learning centers in Cambodia, the information is still limited (Royal Government of Cambodia, 2019a). Previous studies also demonstrated the low levels of community people’s lifelong learning attitude (Candy & Crebert, 1991; Steffens, 2015). The causes of low levels of community people’s lifelong learning attitude come from some main factors such as low socio-economic status, conventional culture, mindset, and beliefs (Jarvis & Griffin, 2003). Some studies suggested to the researchers, government and other relevant stakeholders to study the present situation of community people’s lifelong learning attitude (Hori & Cusack, 2006). Furthermore, without proper understanding the level of community people’s lifelong learning attitude, fostering lifelong learning attitude of community people and training them to become lifelong learners

will not be able to achieve. Hence, this purpose of research study aims to “explore the current situation and components of lifelong learning attitude of community people in community learning centers in Cambodia.”

2. Literature Review

Alvin Toffler (2018, p. 172) stated that “the illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn”. Based on his perspective, to be an educated person is to keep learning new things and abolish unnecessary old stuff. Never stop learning is the fundamental concept of lifelong learners. Otherwise, you will become the most disadvantaged and vulnerable people because you are not able to adjust to the new learning environment.

Besides, lifelong learning, informal, and non-formal education are implemented in community learning centers. There are various programs and activities, which have been run in community learning centers such as Functional Literacy, Post-Literacy, Re-entry program, Equivalency program, complimentary education program, income generation program (Department of Non-Formal Education, 2014). Those programs and activities have benefited Cambodian people in terms of upgrading their skills, knowledge, and livelihood (Hun, 2015). To promote lifelong learning attitudes in the community, there are libraries and reading rooms inside community learning centers. Besides, there are some documents such as books, magazines, newspapers, and other materials that have been installed in the library to foster the reading habits and attitudes of community people (MOEYS, 2011). Lifelong learning in the Cambodian context is quite novice and new to this small country due to the flawless and stringent education system (Royal Government of Cambodia, 2019a). Mostly, lifelong learning emerges in the concepts of informal education and non-formal education which are implemented through community learning centers as the school of these education systems.

Hence, to analyze and study the lifelong learning attitudes of community people in community learning centers in the Kingdom of Cambodia, it is vital to study community learning (a driver), lifelong learning in the Cambodian context, and some theoretical framework of lifelong learning.

2.1 Community Learning Centers in Cambodia

Community Learning Centers were started under the supervision of the Department of Non-Formal Education, Ministry of Youth and Sports since 1994 and supported by UNESCO. After that there was a pilot project of CLCs under of the support of UNESCO Bangkok and had been implemented from 1999 to 2001 (Department of Non-Formal Education, 2000).

At the other extreme, community based-learning approach, Cambodia has attempted to use this approach to accumulate people to learn in the community through formal education. For instance, Cambodia has applied this approach since the early 1990s through the cluster school system. However, the participation of community in the cluster school system is still limited, Cambodia has applied a new approach into non-formal education namely “Community Learning Center” in 1999. More often than not, this project not only produced positive outcomes, but also some drawbacks in the promoting participation from the community people (Pich, 2008). As a matter of fact, CLCs in Cambodia is the under the support of governments, NGOs, and other stakeholders since it is in a very young which lacks maturity, ownership, and leadership. As Cambodia is a developing country which lacks sophisticated technology and

human resources enough to run the centers smoothly, more or less the challenges merges. These challenges can be the factors to thwart CLCs moving on. According to the Ministry of Education, Youth, and Sports (MOEYS) stated that there are approximately 347 CLCs in Cambodia which are processing and implementing their activities in the rural areas (MOEYS, 2014). At the other extremes, not all the CLCs can perform and function well, and there are only around 296 centers functioning while the rest had no activities and became inactive due to lack of community participation. Moreover, talking about the manual and guideline of community learning centers in Cambodia, they were developed and updated by the Department of Non-Formal Education (DNFE) of MOEYS, but there were no proper guidelines to promote community participation. The CLCs were managed and implemented by following the patterns of that manual. Particularly, within this guideline, the CLCs have implemented and operated in a uniform mechanisms and practices (MOEYS, 2011).

Hence, based on the guideline and manual, CLCs are required to divide and set up to two main committees which are the CLCs Management Committee (CLC-MC) and CLC Support Committee (CLC-SC) (MOEYS, 2014). The structures of management committees of CLCs consist of 3 to 5 members including 1 Chief, 1 deputy chief, 2 or 3 members and one permanent secretary. The good thing is in the committee that should have at least one woman on the committee to make it balance and gender equity (MOEYS, 2014).

2.2 Lifelong Learning in the Cambodian context

According to the Department of Non-Formal Education (DNFE) of the Ministry of Education, Youth and Sports in Cambodia, National Policy on Lifelong Learning was just come into force on August 2019 (Royal Government of Cambodia, 2019b). One of the main purposes of this national policy is to ensure access to the rights, freedom, and happiness of individuals, families, and society in responding to the job market in the new context. Moreover, in this national policy, lifelong learning can be defined as a learning process in formal, non-formal and informal education starting from the birth to death, for the development of knowledge, skills, attitude, physical fitness, and value. In this sense, they will become good citizens and live together in harmony. For instance, the constitution of the Kingdom of Cambodia stated in Article 65 that “the state shall protect and upgrade citizen rights to quality education at all levels and shall take necessary steps for quality education to reach all citizens” (Royal Government of Cambodia, 2007). It means that the government should take a leading role to provide equitable quality education to all Cambodian citizens regardless of their genders, ages, and religions (Royal Government of Cambodia, 2009). MOEYS has their strong effort to provide by-all-mean opportunities for everyone to have access to education through launching illiteracy campaigns (Department of Non-Formal Education, 2015). In the following actions, there are many measures and actions which have been taken such as Law on Education, Policy on Non-Formal Education, and National Non-Formal Education Plan to meet the demand of the target groups, especially those people lose education opportunities. An interesting case in the Cambodian education, although there are around 97% of students who have enrolled in primary school, there are only 20% who could manage to finish upper secondary school. Therefore, there are approximately 80% who are not able to finish high school which is the biggest problem for the Cambodian government to put it into solution (Department of Non-Formal Education, 2018b). Non-formal and informal education should play an important role to fill the gaps of formal

education as well as to provide the second chances to the deprived opportunities students to have access equal education. Of course, lifelong learning should be promoted to improve the social welfare and living standards of the people.

In conclusion, lifelong learning in the Cambodian context is a bit limited in terms of educational structures and systems. Particularly, it exists in the form of non-formal and informal education. Lifelong learning has played a vital role in bridging the gaps of formal schooling systems which could provide the second chances to those who miss the opportunities to attend in the formal schooling system.

2.3 Theoretical Framework

2.3.1 Self-Directed Learning

Self-directed learning is not a new concept nor is it a very old one. Self-directed learning has existed since the lives of Greek philosophers such as Socrates, Plato, and Aristotle. In addition, there are some historical self-directed learners such as Alexander the Great, Caesar, Erasmus, and Descartes. Knowles (1980) has published a book called “Self-Directed Learning” providing foundational definition and assumption that guided much prospective research such as human grows in capacity and need to be self-directing, learner’s experiences are rich resources of learning, individual learns around their required task, adults learn through problem-based-learning, and self-esteem, curiosity, desire to achieve and satisfaction of accomplishment are the main motivation for self-directed learners.

According to Hiemstra and Sisco (1990), the concepts of self-directed learning considered as PRO (Personal Responsibility Orientation) model. In this sense, personal responsibility refers to individuals assuming ownership for their own thoughts and actions. The learners have their own choices about what they want to learn and take actions. They have a sense of self-direction in which they are responsible their own actions and decision. Hiemstra and Sisco (1990) have put more emphasizes on the self-direction which centers on those external factors to individual. Whereas other scholars mentioned self-concept, readiness for self-direction, the role of experiences, and learning styles. In the same manner, there is also a strong connection between self-directed learning and learner self-direction which both internal and external aspects of self-direction can be on a continuum when there is a balance of the learner’s level of self-direction (Hiemstra & Sisco, 1990). Self-directed learning is a crucial concept for adult learners since they need to learn outside the school system as they are busy with their families and employment. Adult learners must have a sense of self-direction for their learning, so they are able to succeed in their learning.

In conclusion, there are many concepts and characteristics of self-learning which have been stated by various scholars. To be a self-directed learner, they should obtain some attitude like having personal responsibility orientation, being curious, having a sense of self-direction, learning through problem-centered learning, and having wide experiences.

2.3.2 Pedagogy of the Oppressed

The concept of pedagogy of the oppressed was brought by Paulo Freire which is one of the most classic as it has (Freire, 1970). Throughout this half century, pedagogy of the oppressed has become increasingly more relevant as the 21st century ushers the world into a very dark new age. The main goal of pedagogy of the oppressed was not propose an innovative

methodology (which would be antithetical to his critique of formulaic models of education) but to launch the development of an emancipatory pedagogical process that invites and challenges students, through critical literacies, to learn how to negotiate the world in which they find themselves, in a thoughtful and critically reflective manner (Nelson & Neufeldt, (1998).

In the theory of pedagogy of the oppressed, the conflicts between the oppressor groups (elite people) and oppressed groups (farmers or partisans). The oppressor refers to the holding power group of people who use their power to exploit and oppress the voice the weaker groups who will become as oppressed groups. To make oppressed people stand up and raise their voices out to fight against the oppressors, conscientization producers should be proceeded to stimulate the oppressed groups 'critical thinking and keep thinking for better solution. According to Paulo Freire, love, humility and faith are the foundations to construct the trust which leads dialogue to occur; education should be done via loyal dialogue and transformed information into knowledge. It is a contradictory perspective to banking education established by dominant people (oppressors) who consider teachers as the subject and students as the objects; students learn passively everything from the contents delivered by the teachers. Hence, creativity and innovation will never take place. It is to be noted that the word "praxis" consists of two main dimensions- actions and reflection. In this manner, education can be learnt through interaction and dialogue via reflection and action as an instrument to bridge the gap of knowledge between the teacher and students. In other words, learners have to use their conscientization to reflect the action accordingly by using their critical thinking skills to solve authentic problems; putting the same line, Freire also mentioned about problem-posing education is one of the most vital mechanisms to channel the knowledge to the learners as they can use their critical thinking skills to analyze the facile problems and simultaneously apply the knowledge into the reality. A quote from Paulo Freire, 1970 "Literacy was not a mean to prepare students (the oppressed) for the world of subordinated labors or "careers", but a preparation for a self-managed life".

In light of lifelong learners based on the pedagogy of the oppressed, they should obtain deep critical thinking skills and use both actions and reflection. It means that the learners can learn through the real problem and use their critical thinking skills to reflect the solution before taking their actions. For example, the words "SLUM", they don't just learn how to spell or write that word, but they have visual image of the slum. They should try to understand the causes of the slum and what the negative impacts of slums are, and to solve this problem. This process, the learners will use conscientization to think critically and thoroughly to solve the problem.

2.3.3 Transformative Learning

Transformative learning theory was introduced by Mezirow (1991) which provided in-depth understanding how adult learns through transformative concepts. He explained the way adults learn through the process of frames of reference (window of knowledge and experiences). Everyone has different frames of references due to their diverse experiences. We can change and transform of our frames of references through our meaning experiences.

Jack Mezirow stated about the word "Paradigm Shift", which refers to the changes and modifies of their ways of learner's thinking. So, first we need the learners to realize about their own problems. We see that it is a problem, but other people think that it is ok for them. They

are still happy and enjoy their live with that situation. Hence, the facilitator of learners is to help the learners realize their problems. Once the learners realized the problems, at this stage, we called “Disoriented Dilemma” (Mezirow, 1991). After that it is self-examination about the feeling towards the problem, it can be the feeling of guilt or ashamed. Then the learners use critical assessment on their knowledge and belief, which find new knowledge (Christie, Carey, Robertson, & Grainger, 2015). In addition, the learners can start to make dialogue and make the negotiation with their partners or friends to seek for the consensus and a common ground to solve the problems (Dirkx, Mezirow, & Cranton, 2006). Lastly, they can take action based on their discussion with their friends or the people in the community. To be a lifelong learner, they must change the habit of their expectation and the ways of thinking (Taylor, 1997). The learners also know how to find new knowledge through their critical reflection. Instrumental and communicative learning also playing a significant role in transforming the perspectives of learners. They can take action based on their discussion and negotiation (Mezirow, 1998).

In conclusion, extend the frames of references of the learners, the facilitator has to help them to face “paradigm shift or disoriented dilemma”. Then the learners will start to evaluate their problem by using critical reflection. They have to make a dialogue and negotiation with their partners to team members to seek for a common ground to solve their problems.

3. Research Objectives

There are two main research objectives in this research study as stated in the following:

1. To study the current situation of lifelong learning attitude of community people in community learning centers in Cambodia
2. To examine components of lifelong learning attitudes of community people in community learning centers in Cambodia.

4. Research Methodology

In order to study the current situation and components of lifelong learning attitudes of community learning centers in Cambodia, the researcher has utilized a qualitative research method. Furthermore, it is ideal to use qualitative research because it helps the researcher to understand how people interpret their experiences, how they construct their world, and what meaning they attribute to their expertise (Merriam & Tisdell, 2016).

4.1 Population

The population in this research study is all Cambodian experts in the field of non-formal education and lifelong learning, both government and non-governmental organizations. Those Cambodian experts have working experiences of at least 05 in the field of non-formal education and lifelong learning, especially have an interest in the lifelong learning attitude of community people in community learning centers.

4.2 Sampling Design

It is a purposive sampling method, which aims to select 03 Cambodian experts to conduct a semi-interview. Moreover, there are 03 adult educators and experts in lifelong learning who have been chosen to perform analysis to synthesis the components of permanent learning attitude in general. It is because the researcher aimed to seek the correct components

of lifelong attitudes based on concepts and theories those adult scholars and educators to validate with Cambodian experts.

Table 1. Background information of adult educators and experts

No	Adult Educators and Experts	Position	Workplace
1	Expert 01	Head of Non-Formal Education	One of District Offices of Education
2	Expert 02	Country Director	One of the NGOs working on adult education in Cambodia
3	Expert 03	Chief Executive Officer	One of the NGOs working on Cambodian education

4.3 Research Instrument

A Semi-interview is the main instrument in this research study. It is to conduct a semi-interview with 03 Cambodian experts. Moreover, it is focused on various aspects and components to a lifelong learning attitude of community people in community learning centers. The objective of conducting a semi-interview is to explore the current situation of permanent learning attitude of community people in community learning centers in Cambodia. The researchers also employed triangulated methods through documentation and observation to ensure the credibility and validity of the data as well as to reassure that those research objectives are uncovered.

4.4 Data Collection

There are two main types of data to attain this research objective, which are primary and secondary data. In this manner, secondary data has been extracted from educational policies, strategies, books, journals, and articles. In contrast, primary data has been collected through conducting a semi-interview and content-analysis to study the current situation and components of the lifelong learning attitudes of community people in community learning centers in the Kingdom of Cambodia.

4.5 Data Analysis

The data analysis was conducted after the researcher received all the information from the semi-interview with three Cambodian experts on the current situation and components of the lifelong learning attitude of community people in community learning centers in Cambodia. Notably, all the data were transcribed and recoded to understand the perceptions of those Cambodian experts, as well as content-analysis, which has been used to synthesize those five adult educators and scholars.

4.6 Credibility and Ethical consideration

To ensure the credibility of the research study, the researcher has employed a triangulation method to diversify how to collect the data. To study the current situation and components of the lifelong learning attitude of community people in community learning centers in Cambodia, the researcher has conducted a semi-interview with three Cambodian

experts and observation during the semi-interview and document analysis from various foreign adult educators and scholars.

For ethical consideration, all the participants and key informants voluntarily participated in the data collection. All the information has been kept confidential and academic purposes.

5. Research Findings and Discussion

5.1 Current Situation of Lifelong Learning Attitudes of Community People

Community learning centers in Cambodia have played a key role in providing lifelong learning opportunities in the form of informal and non-formal education (Neak & Charungkaittikul, 2020). The Department of Non-Formal Education, the Ministry of Education, Youth and Sport in collaboration with developing partners to transform community learning centers into lifelong learning centers. In addition, some noticeable programs are running such as functional literacy, re-entry, equivalency, complementary, income generation program, life skills and health improvement program (Department of Non-Formal Education, 2018a). Those programs aim to provide community people with basic skills and knowledge so as to be able function in the real world of work. After conducting an interview with Cambodian experts, it has manifested the current situation of lifelong learning attitudes of community people in community learning centers in Cambodia is less proactive and new concepts to them. “We have just established the National Policy on Lifelong Learning, which came into force in August 2019” (Expert 01, 2022). He also posited that “community people do not understand and acknowledge the benefits of lifelong learning” (Expert 01, 2022). In this sense, this information articulates that community people have limited knowledge and information regarding the significance of lifelong learning. Besides, “there is a lack of physical infrastructures and conducive environment to facilitate learning to pursue their lifelong learning” (Expert 02, 2021). Through the observation in community learning centers, there are not enough facilities, materials, and documents for the community people to have access to their education, and particularly most of those documents are out of date.

Furthermore, the experts also pointed out the current situation of lifelong learning in the CLCs that “there are not enough vision, mission, strategies, action plan, budget plan, the lack of capacity building of facilitators of CLCs, and the lack of community participation. Importantly, there is a lack of involvement from NGOs and other stakeholders to improve marketing chances for community people” (Expert 03, 2022). As a result, lifelong learning in community learning centers in the Kingdom of Cambodia is quite limited and less active. There should be stringent measures and action plans to improve lifelong learning in Cambodia; otherwise, lifelong learning in Cambodia will not be able to move forward, and people will lose a lot of benefits from this fast-paced changing world. Furthermore, Cambodian people uphold conventional culture and tradition in terms of valuing education. Some of community people do not want to participate in any learning activities organized by community learning centers because of the notion that education cannot totally change their lives, and what is important for them is to earn money and take care of their farms to support their families (Lo, Chan, & Ngai, 2016).

In conclusion, the current situation of community people's lifelong learning attitudes in the Cambodian CLCs is low levels and in the blurred lines. The concept of lifelong learning is just emerging in the community context. Hence, the Cambodian government and other relevant stakeholders need to take actions to foster lifelong learning attitudes of community people to become lifelong learners.

5.2 The Components of Lifelong Learning Attitudes of Community People

To study components of lifelong learning attitudes of community people in community learning centers in Cambodia, the concepts of lifelong learning of adult educators such as Malcom Knowles (1980), Jack Mezirow (1991), Paulo Freire (1970), Rosemary Caffarella, et al. (1987) and Norman Longworth (2003). Those concepts and ideas have been synthesized and synchronized in Table 2.

Table 2. Synthesized the components of lifelong learning attitudes

The Lifelong learning attitudes of the learners	Malcom Knowles (1980)	Jack Mezirow (1991)	Paulo Freire (1970)	Rosemary Caffarella, et al. (1987)	Norman Longworth (2003)
1. They have high levels of critical thinking skills.	√	√	√	√	√
2. They have a sense of direction.	√			√	√
3. They learn from experiences and problems.	√	√	√	√	√
4. They like learning by making their own plan. (Self-planned learning)	√			√	√
5. They learn something using the process of conscientization.			√		√
6. They are self-directed learners.	√	√		√	√
7. They are active citizens.					√
8. They will learn when they face a disoriented dilemma situation.		√			
9. They have responsibilities for their learning.	√			√	√
10. They are technology literacy. (Information location)				√	√
11. They keep curiosity and self-awareness	√	√	√	√	√
12. They are independent and less fragile.	√		√		√
13. They are self-evaluation.	√	√		√	√
14. They are flexible and adaptive learners.	√			√	√

Based on this table, it has manifested the attitudes of lifelong learners, which have synchronized the ideas of lifelong learning and adult educators such as Malcolm Knowles, Jack Mezirow, Paulo Freire, Rosemary Caffarella, and Norman Longworth. For instance, there are 14 components of the attitudes of lifelong learners. There are many components which have

been mentioned by those experts: seemingly critical thinking skills, self-direction, self-planned learning, self-directed learning, conscientization, active citizens and learners, facing a disorienting dilemma, self-responsible education, locating information, self-awareness and curiosity, independent learners, self-evaluation, and adaptive learning strategies. Those components could determine the attitudes of the lifelong learners, which implied it into the lifelong learning attitudes of community people in community learning centers in the Kingdom of Cambodia. After conducting the interview, the Cambodian experts, it has shown that most of the lifelong learning attitudes of community people in community learning centers are confirmed with lifelong learning attitudes mentioned in Table 01. Those lifelong learning attitudes of community people in community learning centers are self-directed learners, self-direction, self-planned learners, located information, self-evaluation, self-awareness, and adaptive learning strategies. Notably, one of the Cambodian experts mentioned the lifelong learning attitudes of community people that “they are self-directed and awareness of any arising phenomena, and most of them like reading newspapers, books, magazine, and reading to news” (Expert 01. 02 &03, 2022). Hence, there are some documents like books, newspapers, magazines, radios, and televisions for the learners to get knowledge and keep on their learning, which have been installed in libraries in community learning centers.

In conclusion, after conducting content-analysis regarding lifelong learning attitudes by adult educators and conducting interviews with the Cambodian experts, there are some components of community people’s lifelong learning attitudes in community learning centers in Cambodia. Those lifelong learning attitudes are self-directed learners, self-direction, self-planned learners, located information, self-evaluation, self-awareness, and adaptive learning strategies.

Discussion

The result of the research study has demonstrated the current situation and components of the lifelong learning attitude of community people in community learning centers in the Kingdom of Cambodia. It reflected on the real literature review and some theoretical frames of lifelong learning, especially in the Cambodian context.

According to the research findings, lifelong learning in Cambodia is just an emerging concept, which has little known to other community people. As in the literature review, Lay, Chhum, and Conochie (2013), lifelong learning in Cambodia is a new concept, and we consider non-formal education is a part of lifelong learning by implementing those programs in community learning centers. Moreover, people have little knowledge of lifelong learning, and sometimes they do not realize their activities as a lifelong process, which means they do unconsciously or by following their ancestors (Pich, 2008). It implies that everyone acknowledges lifelong learning as natural learning and informal learning which they learn from their surroundings. In a similar manner, some of the community people do not realize such learning activities as a part of education. Most community people like reading to the radio in order to keep on track of the news rather than reading newspapers or magazines. We can see that the current situation of the lifelong attitude of community people in community learning centers looks not so promising and less proactive, certainly during the outbreak of Covid-19. Most of the activities and training have been postponed, and people worry about health security, which makes them feel relentless about their learning.

The components of lifelong learning attitude of community people in community learning centers were validated and suitable to shape them into the Cambodian context. For instance, those components are self-directed learners, self-direction, self-planned learners, located information, self-evaluation, self-awareness, and adaptive learning strategies. Similarly, those components have the characteristics and behaviors to become a lifelong learner in the Cambodian context, which have been practiced in community learning centers. It is not surprising that aspects of lifelong learning attitude of community people in community learning centers in Cambodia are not much different compared to components of lifelong learning attitude of Western countries because it is a standard level in which everyone can use them to develop their lifelong learning attitude.

In a nutshell, the current situation of lifelong learning in Cambodia is at a low level, and terms of the lifelong learning attitude of community people in community learning centers, people have little knowledge and low levels of lifelong learning attitudes. The components of permanent learning attitude of community people such as self-directed learners, self-direction, self-planned learners, located information, self-evaluation, self-awareness, and adaptive learning strategies are a bit like the standards of lifelong learning attitude measurement scales.

6. Conclusion and Recommendations

The research study has manipulated the limited levels and less active of lifelong learning attitudes in community learning centers. For instance, community people do not understand the benefits of lifelong learning in terms of enhancing their capacity building. Some of them do not just participate in the learning activities organized by community learning centers. Particularly, this research study also demonstrated that lifelong learning is an emerging concept in Cambodia as the national policy on lifelong learning was just introduced in 2019. As a result, the lifelong attitudes of community people in the CLCs need to be fostered to become lifelong learners.

This research study has shown that there are seven components of lifelong learning attitudes of community people in the CLCs which are self-directed learners, self-direction, self-planned learners, located information, self-evaluation, self-awareness, and adaptive learning strategies. Those seven components of lifelong learning attitude of community people in the CLCs should be promoted as to help community people enhance their lifelong learning attitudes and initiative activities to improve the lifelong learning status quo.

To sum it up, there is a low level of community people's lifelong learning attitudes in the CLCs in Cambodia. In addition, the components of community people lifelong learning attitude in the CLCs such as self-directed learners, self-direction, self-planned learners, located information, self-evaluation, self-awareness, and adaptive learning strategies. Due to the limitations and fragility of lifelong learning in Cambodia, there should be tangible and rigorous measures from the Cambodian governments to build trust and confidence of all relevant stakeholders. By so doing, lifelong learning in Cambodian can be enhanced and promoted through the participation of NGOs and community people.

Recommendations

The results of this research study provided suggestions for the Cambodian government, practitioners, and other relevant stakeholders regarding the current situation and components

of lifelong learning attitude of community people in community learning centers in the Kingdom of Cambodia.

As shown in the research findings, the research study denoted that the lifelong learning attitude of community people in community learning centers is still limited and low levels. It is a critical situation and points for the Cambodian government and all relevant stakeholders to take their actions to promote a lifelong learning attitude of community people in the community learning centers. The facilitators and practitioners can use those components as a framework to foster lifelong learning attitudes of community people in community learning centers. The government shall focus on physical infrastructures such as buildings, learning environments, and facilities. Furthermore, strategic plans, annual operational procedures, and policies should be carried out in order to enhance participation among all relevant stakeholders. They shall evaluate and monitor CLCs' performances in order to figure out the weaknesses and loopholes for future success.

This research study suggests prospective scholars and researchers continue to do this study on a bigger scale and population. Based on the information from this research study, they continue developing strategies to promote the lifelong learning attitude of community people in community learning in the Kingdom of Cambodia.

References

- Baloch, S., Baloch, M. A., Zheng, T., & Pei, X. (2020). The coronavirus disease 2019 (COVID-19) pandemic. *The Tohoku journal of experimental medicine*, 250(4), 271-278.
- Brockett, R. G., & Hiemstra, R. (1991). *Self-direction in Adult Learning: Perspectives on Theory, Research and Practice*. London: Routledge.
- Caffarella, R. S., O'Donnell, J M. (1987). Self-directed adult learning: A critical paradigm revisited. *Adult Education Quarterly*.
- Candy, P. C., & Crebert, R. (1991). Lifelong learning: An enduring mandate for higher education. *Higher education research and development*, 10(1), 3-17.
- Christie, M., Carey, M., Robertson, A., & Grainger, P. (2015). Putting transformative learning theory into practice. *Australian journal of adult learning*, 55(1), 9-30.
- CSCE. (2013). *A Report on Adult Literacy Rate*. Cambodia: Ministry of Education, Youth and Sports.
- Department of Non-Formal Education. (2000). *Community Learning Centers in Cambodia*. MOEYS.
- Department of Non-Formal Education. (2014). *Report on Non-formal Education, 2014*. Cambodia: Ministry of Education, Youth and Sport.
- Department of Non-Formal Education. (2015). *Non-Formal Education Statistics and Indicators*. Phnom Penh: Planning and NFE-MIS Office.
- Department of Non-Formal Education. (2018a). *Non-formal education statistics and indicators*. Phnom Penh: Ministry of Education, Youth and Sport
- Department of Non-Formal Education. (2018b). *Report on non-formal education in 2018*. Cambodia: Ministry of Education, Youth and Sport.

- Dirkx, J. M., Mezirow, J., & Cranton, P. (2006). Musings and reflections on the meaning, context, and process of transformative learning: A dialogue between John M. Dirkx and Jack Mezirow. *Journal of transformative education, 4*(2), 123-139.
- Freire, P. (1970). *Pedagogy of the Oppressed*. New York: Bloosbury.
- Global Mornitoring Report 2005. (2004). *Education for all, the quality imperative*. Bangkok: UNESCO
- Hiemstra, & Sisco. (1990). *Individualizing Instruction: Making Learning Personal, Empowering, and Successful*. San Francisco, California: Jossey-Bass.
- Hori, S., & Cusack, S. (2006). Third-age education in Canada and Japan: Attitudes toward aging and participation in learning. *Educational Gerontology, 32*(6), 463-481.
- Hun, S. (2015). *The Cambodia Community Learning Centers: Challenges and Future Directions*. (Master Degree). Royal University of Phnom Penh, Faculty of Education.
- Ilin, G. (2019). Sustainability in Lifelong Learning: Learners' Perceptions from a Turkish Distance Language Education Context. *Sustainability, 11*. doi:doi:10.3390/su11195284
- Jarvis, P., & Griffin, C. (2003). *Adult and Continuing Education: Teaching, learning and research* (Vol. 4): Taylor & Francis.
- Knowles, M. (1980). *Self-directed learning: A guide for learners and teachers*. New York: Association Press.
- Lay, V., Chhum, S., & Conochie, G. (2013). *A survey of the NGOs non-formal education (NFE) sector in Cambodia*. Phnom Penh: NGO Education Partnership (NEP) with UNESCO CapEFA funding support.
- Lo, K. W., Chan, S. C., & Ngai, G. (2016). *Using a recycled container to setup a community learning centre in rural Cambodia—A case study*. Paper presented at the 2016 IEEE Global Humanitarian Technology Conference (GHTC).
- Longworth, N. (2003). *Lifelong Learning in Action*. Great Britian Norman Longworth.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative Research: A Guide to Design and Implementation*. the United States of America: Jossey-Bass.
- Mezirow, J. (1991). *Transformative Dimensions of Adult Learning*. San Francisco: Jossey-Bass Publishers.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education, 1997*(74), 5-12.
- Mezirow, J. (1998). Transformative learning and social action: A response to Inglis. *Adult education quarterly, 49*(1), 70-72.
- MOEYS. (2011). *Guideline on the leading and the management of community learning centers*. Phnom Penh: Ministry of Education, Youth and Sports.
- MOEYS. (2014). *Manual for management of community learning centers (CLC)*. Phnom Penh: Department of Non-formal education of MOEYS.

- Neak, P., & Charungkaittikul, S. (2020). Guidelines to enhance community participation in community learning Centers in the kingdom of Cambodia. *Journal of Adult and Continuing Education*, 14779714221131893.
- Nelson, M. L., & Neufeldt, S. A. (1998). The pedagogy of counseling: A critical examination. *Counselor Education and Supervision*, 38(2), 70.
- Pich, N. (2008). *Community learning center development in Cambodia: the case of Ksert commune in Svay Rieng Province*. (Master Degree). Royal University of Phnom Penh, Phnom Penh.
- Royal Government of Cambodia. (2007). *Education Law*. Phnom Penh: Royal Government of Cambodia.
- Royal Government of Cambodia. (2009). *Policy of non-formal education*. Phnom Penh: MOEYS.
- Royal Government of Cambodia. (2019a). *National Policy on Lifelong Learning*. Phnom Penh Royal Government of Cambodia.
- Royal Government of Cambodia. (2019b). *National Policy on lifelong learning education*. Phnom Penh: Royal Government of Cambodia.
- Steffens, K. (2015). Competences, learning theories and MOOC s: Recent developments in lifelong learning. *European Journal of Education*, 50(1), 41-59.
- Taylor, E. W. (1997). Building upon the theoretical debate: A critical review of the empirical studies of Mezirow's transformative learning theory. *Adult education quarterly*, 48(1), 34-59.
- Toffler, A. (2018). Learn, unlearn and relearn. Retrieved from <http://speargroup.com/2018/11/01/learn-unlearn-and-relearn/>
- UNESCO. (2016). Concepts and Realities of Lifelong Learning. *Global Education Monitoring Report*.



Ministry of Education, Youth and Sport
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Article

Significance of the Education Strategic Plan in Promoting Quality of Education: A Provincial Case Study of Educational Officers on Planning Formulation and Implementation

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Abstract

This case study investigates the perceptions of educational staff at the sub-national levels on the effectiveness of Education Strategic Plan (ESP) formulation and implementation. Semi-structured interviews were used to explore views and perceptions of 36 education staff at the Provincial Office of Education (POE), District Office of Education (DOE), and schools in Kratie province in northern Cambodia, a location selected representing a region with below-average key educational indicators. Participants were interviewed about their perceptions of planning formulation and implementation, with particular reference to identifying barriers to effective planning and implementation.

The qualitative findings demonstrated three possible areas which are impacting ESP formulation and implementation at the sub-national and school level. Each area is multi-faceted. The three areas are: (i) limited awareness and participation in national policies and planning and education indicators; (ii) issues with planning durations being fit-for-purpose; and (iii) structural barriers, including budget, resources, decentralization and deconcentration (D&D) reform, project-based and external interventions, lack of training and low capacity with statistics.

Key words: *Educational Planning, Education Strategic Plan, Education, School Development Planning, Implementation*

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1. Introduction

1.1 Global perspective on ESP development

Three organizations, the Global Partnership for Education (GPE) and the International Institute for Education Planning (IIEP) within the United Nations' Educational, Scientific and Cultural Organization (UNESCO), are the main contributors to this area of development: few guidelines exist besides these, which may indicate a high level of aligned practices globally. According to the Guidelines for Education Sector Plan Preparation and Appraisal (GPE / UNESCO IIEP, 2012), there are three essential elements of the plan preparation process: (1) a participatory process; (2) a well-organized process; and (3) a capacity development process. A participatory process is a process to design the ESP based on political will and technical expertise that can identify the balance between political ambitions and technical constraints in order to raise awareness and gain the commitment of education stakeholders. The process should involve participation from the relevant ministries, especially the Ministry of Economy and Finance (MEF), and development partners. A well-organized process should design a structure for education sector preparation and organize the roles and responsibilities of actors to coordinate the process with a steering committee, planning committee, and technical working groups. A capacity development process should improve the capacity for educational planning and the motivation of all education planners at all levels to strengthen education sector plan preparation (GPE / UNESCO IIEP, 2012).

According to the GPE/UNESCO IIEP guidelines for education sector plan preparation and appraisal, ESP preparation is an iterative planning process. Targets can be revised after they are tested in a simulation model. Strategies can be set through the program's activities and resources. The ESP formulation process should involve consultation with education administration personnel and development partners. GPE/UNESCO IIEP (2015) also stated that ESP preparation is a process involving seven components of the ESP development process as shown in Figure 1, below.

Based on the author's experiences as an ESP developer, this is applicable to the Cambodian context as during the preparation process of the ESP, a simulation model is used. This model, CANPRO (Cambodia Analysis Projection Model), tests scenarios with strategies and resources requirements, and budgeting with target setting. If a high target is set, for example, the model will show high resources and compare them to the resources available to see if the target is achievable.

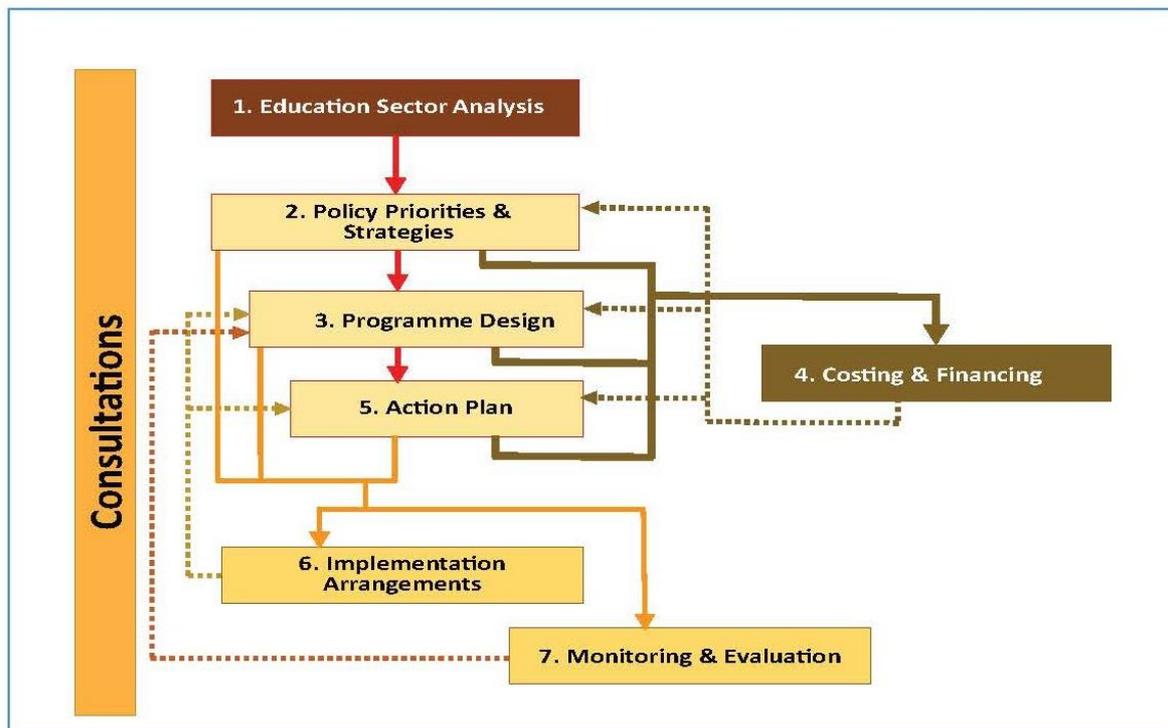


Figure 1. Main components of the ESP development process

Source: IIEP-UNESCO, 2015:13

The Organization for Economic Co-operation and Development (OECD) stated that globalization has delivered rapid changes across all sectors, including education, with inputs from areas such as new technology and innovation, a knowledge workforce, and social and population trends. Therefore, the education system is required to improve equity and equality for child and youth development for the future. However, education policy priority reforms often cannot achieve their stated goals due to various reasons, including: a lack of attention to actual implementation; lack of focus and support for reaching goals; poor alignment within and across sectors; and the lack of capacity at the grassroots level (OECD, 2020).

According to these multiple factors, OECD (2020) stated that the nature of education policy implementation is flexible because of the complexity of the environment for implementation. This includes geographical and social issues, such as differing needs for urban and rural education, being specified in unified national policies. Policy processes are moving from top-down structures to horizontal interactions, often built upon negotiation and co-construction between many actors. In this environment, the role of policymakers is increasingly to steer and coordinate different actors to arrive at a common vision for education and ensure that everyone is moving in the same direction to accomplish education change. This is summarized in Figure 2, below.



Figure 2: Framework for effective education policy implementation

Source: OECD, 2020:7

1.2 Cambodian context

The Ministry of Education, Youth and Sport (MoEYS) of Cambodia has been formulating ESPs, policies, policy papers and action plans for the purpose of increasing equitable access to education services, improving the quality of education, and strengthening leadership and management for education officials at all levels. Furthermore, MoEYS has designed the structure of management at the national, provincial, district and school levels for implementing these policies and action plans. Despite these efforts, the Education Congress Report (MoEYS, 2020) showed there are still significant challenges to the ESP implementation year-on-year, due to ineffectiveness and the inability to reach targets set in the planning.

The ESP has been developed over a period of more than 20 years for education system development and reform. From 1980 to 1995, MoEYS developed the Annual Operational Plan. In 1995, the MoEYS developed the education plan for five years (1996-2000) which identified vision, mission, and strategies, but did not estimate the budget resource requirements or teacher deployment numbers (MoEYS, 1995). This five-year plan may be considered the precursor to

the development of the ESP. Since 1999, MoEYS has accelerated reforms in the education sector which are still in progress. The successive ESPs include ESP 2001-2005, 2004-2008, 2006-2010, 2009-2013, 2014-2018, leading to the current ESP 2019-2023 (MoEYS, 2019). The ESP is subject to a Mid-Term Review (MTR) (MoEYS, 2022) to review education indicators and monitor the progress of ESP implementation.

Onn & Hyojin (2019) stated that the challenges to the ESP preparation process at the provincial level are related to a lack of knowledge of the procedures for how to prepare an ESP, a lack of technical support provided from the national level, planning officers having limited capacity in the use of planning concepts and statistics, limited participation from stakeholders involved in ESP preparation (joint steering committees, technical working groups, officers at POE level), and development partners (NGOs at the local level), frequent staff turnover, and some data for minority groups being unreliable, especially in the plateau and mountain areas.

In Cambodia, education staff have roles and responsibilities for planning that relate to their levels within the administrative system.

Provincial Offices of Education (POE) are responsible for creating a Provincial ESP (P-ESP) based on the national plan. Likewise, at the next level, District Offices of Education (DOE) are responsible for creating a District ESP (D-ESP). All entities are expected to produce an Annual Operational Plan (AOP) and schools are expected to create a School Development Plan (SDP) which covers a five-year period (MoEYS, 2023).

The formulation and implementation of strategic educational planning is still a priority for Cambodia. Equity and inclusive access to education remain problematic with differences between the city and remote areas. The quality of education is still low, with only 50.5% of students at Grade 3 level in primary education achieving expected reading levels and only 40.9% achieving expected levels in mathematics (MoEYS, 2019). At the global level, only 10% of Cambodian students at the age of 15 performed well in reading, mathematics, and science (MoEYS, 2018). In Grade 5, 11% and 19% of students met minimum proficiency levels in reading and mathematics respectively, for the end of primary education as set out in the goal of SDG 4 (UNICEF and SEAMEO, 2021).

This research investigates how the stakeholders in these positions perceive their roles as being effective or otherwise, the effectiveness of the planning formulation and implementation and how participants generally perceive whether the system is enabling them to achieve fulfilment of their roles.

2. Research Method

This study was conducted using a qualitative method which was classified into four categories: document review, observational methods, in-depth interviews, and Focus Group Discussions (FGD). Research took place with the main stakeholders in charge of the provincial, district and school strategic plan formulation process and its implementation at each level.

Instruments were designed under three main question headings, which were given slight adaptations for use with different respondent groups. The three questions were:

1. What are the perceptions of education strategic plan implementers regarding the Education Strategic Plan and its implementation at provincial, district and school levels?

2. How do any significant differences in perceptions of education strategic plan implementers influence the Education Strategic Plan implementation at provincial, district and school level?
3. Can any disparities be identified between Education Strategic Plan formulation and implementation? What might account for these disparities?

The researcher undertook a field visit to Kratie Province in February 2023, employing a team of four researchers. This province was selected as one having low achievement levels on key education indicators, including below average student enrolment and retention. Research was conducted in a qualitative manner using a pre-prepared questionnaire. Questions were used as a ‘guide’ to the interview; the interviews may therefore be considered ‘semi-structured’, as the interviewer had the freedom to expand on points or to skip questions when it was felt that a question had been covered in previous discussions. This was to manage the overall interview time and reduce repetition as far as possible. All interviews took 2-3 hours. The senior education officials at POE and DOE were interviewed as individual 1:1 interview. Other representative members were interviewed as a Focus Group Discussion (FGD). The interviews and FGDs implemented are shown in Table 1, below:

Table 1: Participants for Interview and FGD

Interview	FGD
1 Deputy Director of POE 1 Chief of Planning Office of POE	10 POE Officers
1 School principal of lower secondary	9 Lower Secondary School Staff
1 School principal of primary school	8 Primary School Staff
1 Director of DOE	9 DOE Officers
5 Individual Interviews	4 groups of FGD = 36 participants

Data was recorded by contemporaneous note-taking and audio recording of each interview. Each interview was assigned a lead questioner and two note-takers shared duties to enable cross-checking of notes as well. Each interview therefore had a fully-recorded transcript.

The researcher analyzed data using a check for key vocabulary, based on the content of each question, and in cases where answers contained details deemed directly relevant to this report, checks were made to see if any or all participants agreed. In the section below, the word ‘endorsed’ is used to emphasize where a group had a common perception.

Results were filtered to examine common themes, and relevant data points and quotations were selected for inclusion. Minimal disagreement amongst groups was seen, and the author found that focusing on the differences in perceptions between sub-national levels (including schools) was the most productive way to establish where findings might lead to areas for further investigation, including future research. From this analysis, the research was able to group the analysis into four categories, outlined in the next section.

3. Results and Findings

This section presents short summaries based on the three categories identified and listed in the abstract, with sub-headings in bold: (i) **Planning awareness and participation:** sub-national levels appear to have limited awareness of national planning and indicators, and participation in planning processes varies at different levels within the system; (ii) **Planning duration:** this study questions the expected duration of educational planning structures and considers possible alternatives to improve efficiency; and (iii) **Structural barriers** to implementation are present and include: budget, resources, deconcentration and decentralisation (D&D) reform, project-based and external interventions, lack of training and low capacity in statistics.

3.1 Planning Awareness and Participation

The results found that awareness of national planning and key education indicators (those listed within the ESP) is highest at POE level where officials are aware of most key ESP content, especially relating to their own specific sub-sectors or areas. Awareness of national planning and indicators at DOE level is fairly low: DOE officials have some awareness of documentation, such as ESP, but make minimal reference to national or provincial planning, except on occasions where they are specifically mandated to do so. Interviews with DOE staff provided a clear indication that day-to-day requirements would often take priority over annual or multi-year plans. For example, from one DOE officer: *‘The workload is very heavy. We use the plan as a ‘skeleton’ to plan with, but in actual fact our day-to-day activities have to take precedence,’* which was endorsed by the group, as well as the statement from another officer that: *‘If a school or someone needs support, we need to respond regardless of the plan’.*

Awareness of planning at school level is very low for national, sub-national and school planning, and use of key education indicators is minimal. One school principal expressed that: *‘there are many difficulties in planning, and we have to make annual adjustments – for example, to change indicators.* However, even at POE, the level with the highest awareness of policy and planning, the group endorsed the statement from one member that: *‘MoEYS does not invite POE staff to trainings – so POE doesn’t understand the latest policies and methods.’*

It was found that while schools are the units within the system that are expected to take part in the wider consultation with planning, the participation of schools in the ESP development process is minimal. This lack of participation and low awareness of higher-level planning structures means that the involvement of schools and the actual generation of necessary data and evidence for planning purposes does not meet minimum standards.

3.2 Planning durations

POE showed a clear awareness of the necessity of long-term and medium-term planning and how this relates to national planning. In many instances, POE monitoring of schools and districts cannot take place over an annual plan. For example, school inspection (not covered here) uses a five-year plan to visit schools across a whole province. POE leadership stated that they tried to *‘monitor schools over a three-year period – two districts per year’.*

DOE showed some awareness of the necessity of long-term planning but was clear that this did not greatly influence their actual activities. Note that for DOEs, the 2019-2023

D-ESP was their *first* instance of creating a long-term plan.

Schools are quite clear that they plan on a short-term basis with little input from other sources, although they *do* have a five-year plan in place. Schools listed the reasons as: *‘Planning capacity is quite low. ICT capacity is quite low and expectations to use MS Excel (for example) create barriers.’* School staff, although showing high awareness of their own school situation (indicators, etc.), find using forms and formulae difficult, both on ICT resources or on paper. Budget support is not guaranteed from one year to the next. Teachers are generally most focused on their lesson planning and having enough resources: their focus is on ensuring teaching over the next day/week/month. One school secretary said that: *‘Annual planning is much more realistic’*, compared to long-term (multi-year) planning.

Schools cannot plan for ‘long-term’ projects without reliable funding, but are fully aware that they have issues that cannot be fully addressed in an annual plan. Examples where multi-year planning may be required are mostly related to infrastructure such as classroom renovations. School fences (expensive), library development (expensive if infrastructure is required), etc. Schools were clear that they did not always follow plans, where immediate needs were in place, with a teacher saying: *‘Each class writes their requests, but we work from this rather than refer back to planning.’* Another teacher said: *‘We have to make too many estimates in our planning; it’s also difficult for us to estimate areas like community funding as we cannot make assumptions.’*

Schools noted that reliable supplies of essential resources were necessary, with the recent addition of QR codes for textbook delivery and the centralization of this system has improved schools’ planning by reducing the number of controlled variables.

3.3 Structural Barriers

3.3.1 Budget

All respondent group levels (POE, DOE and school) cited lack of centrally-allocated available budget allocation as a barrier to implementing workplans effectively and according to existing legislation. A POE Office Chief stated clearly that: *‘Everything is present in the plan, so can be done if the money arrives.’* All levels also acknowledged that over recent years, the impact of COVID-19 had a negative effect on budgets. At POE and DOE level, respondents all noted that funding was allocated at an insufficient level to enable these sub-national bodies to implement their workplans, and the change in the academic year dates creates extra pressure for reporting. One POE Office Chief said: *‘There is a lack of data ... the time pressure is much greater with the change in the academic year.’* Budgets and reporting pressure are especially important for M&E, where all departments interviewed were unable to meet the required targets for M&E. Budget delivery is also a barrier at DOE level. The switch to increased D&D at district level appears to have reduced the budget availability, and there may be problems ensuring that District Offices receive their correct allocation according to the regulations under decentralized administrative procedures.

Schools have a particular problem with budgetary planning in that they cannot accurately plan for ‘additional contributions’ (e.g. from community, philanthropists, NGOs, etc.). In the schools questioned for this study, this accounted for about 40% of their annual income which cannot be forecast in advance.

The budget for field visits (school monitoring) is not aligned at POE and DOE sub-national levels. At POE level, budget support is distributed according to the harmonized Daily Subsistence Allowance (DSA) rates: i.e. if the distance is >40km, then the full DSA (\$34) can be claimed. For DOEs, the allocation is 40,000riel (≈\$10) regardless of the distance involved. This is a handicap for DOE personnel visiting distant schools, as the rate they receive is much lower than the POE equivalent rate for the same work and was reported by DOEs as being *'unfair'*.

All levels (POE, DOE, and schools) considered that reducing the number of steps of budget delivery (simplification and direct sending of funds to end recipient) was a priority and would *'accelerate delivery'*.

3.3.2 D&D; Project-based and DP/NGOs interventions

Most comments on the effects on planning of project-based interventions and DP or other external interventions (such as NGO local-level projects) were disappointingly negative. Specifically: a 'target schools' approach, whereby schools are selected according to externally developed criteria, is reported at school-level to *'produce inequalities and a feeling of injustice'* (school principal). Much of the DP work is not seen to show measurable benefits. DPs are reluctant to allow 'local ownership' within the projects or interventions. This statement is endorsed by POE Office Chiefs stating that: *'DPs approach with 'may we do this activity?' and is hard to refuse'* and endorsing the statement that *'DPs should increase local ownership and improve alignment.'*

In the opinion of the author, having DP interventions in the barriers category should be a strong message to partners in planning and implementation of their support. A secondary teacher stated that: *'Some of the project-based work makes things more difficult'*, and this statement was endorsed by the teacher group.

Based on this small sample size, D&D reform may be having a negative impact on funding delivery and on ensuring that funding earmarked for education is actually used for the required purposes. This comment should be read in the context of the earlier remarks on budgeting and the need for simplification of systems and direct delivery of funds whenever possible.

POE interviews reported that officers found the planning process *'difficult and complex'*, and this was a barrier for both planning and implementation.

3.3.3 Resources and capacity

There was a specific issue noted relating to ICT capacity. All respondent groups considered that POE and DOE officers lack capacity in ICT work, something that became more apparent during the COVID-19 pandemic. POE has the highest ICT capacity of the groups, but there are more demands to use ICT effectively; schools have the lowest ICT capacity, but there are fewer demands on their ICT work, so they have less experience; DOEs are somewhere between these two levels. All levels likewise consider that they have received inadequate training in this area to date. The author notes that ICT skills and required training are a constantly changing area to address, with technological advances happening at great speed.

An interesting paradox was reported at school level where school staff were uncertain of how to use their new computer systems (provided by MoEYS in 2019) and used ICT that

they were familiar with to address this problem: specifically, smartphone and Telegram messages were used to address ICT issues. DOE officials noted that: *'Schools do a lot of sharing on Telegram and asking questions about areas such as Telegram'*, showing that some ICT tools are being used. School teachers said that: *'The computer is a new system and we have wi-fi. Prices have increased, but most teachers rely on their own phones as there is a weak signal'*. All teachers reported that ICT resources were *'difficult to maintain.'*

Within this case study, participants reported low awareness of online resources, showing there may be a problem with school-level stakeholders not accessing MoEYS online resources, including stakeholders who are unaware of the presence of such documents that are there for school-level support. ESP, for example, is simple to locate online using either Khmer or Latin script. School leadership, in individual interviews, note this as a problem; this is possibly because they have primary responsibility for ICT tasks, with the school computer being located in the school principal's office. One school principal noted that: *'During COVID we had a lot of problems with unequal ICT access relating to ICT capability and lack of signal in rural areas.'* This was endorsed by the teacher group.

The administrative structure for planning also shows reduced human resource capacity from central to sub-national and school levels. For example, MoEYS Department of Planning (DoP) currently has 28 staff; POE Planning Offices usually have four to five staff; DOEs have only one or two planning staff members; even large schools may only have one individual with any planning experience or training. All levels consider that they require additional staff to work effectively and, particularly at school level, they face the problem of low teacher deployment and the need to hire contract teachers.

School Management Committees (SMC) have limited capacity to support implementation of planning, but schools report that SMCs *do* help mobilize local resources. Aside from this, schools use other means available to them. One interesting example from a secondary school teacher was: *'We ... track down and ask successful alumni: if they are Excellencies or Oknhas, they can often give a lot of help'*.

3.3.4 Training and capacity

Training budgets were rated as insufficient at all levels and all levels expressed a preference for face-to-face training rather than online training. All levels were willing to make a concession to hybridized training, but were clear that 'solely online' training was a strong negative factor for them, which in many instances related to the problems of reliable internet access.

POEs reported the specific problem that MoEYS central level *'did not sufficiently invite POE staff to relevant training, meaning that their staff was disadvantaged, especially in the area of monitoring.'*

4. Planning and Policy Recommendations

Based on the case study and the author's experience, the following areas are offered for further consideration.

- **Active involvement of sub-national levels, especially school level, in ESP development process**

The low level of awareness of ESP activity, decreasing from central, to sub-national to school level can be increased by more active involvement in planning formulation. Effective ESP formulation for effective implementation should engage all stakeholders (community, parents, authorities, teachers, school management committee, NGOs and development partners) to participate in the ESP formulation process (as recommended by (GPE / UNESCO IIEP, 2012). Stakeholders involved from the start of the process have a much higher level of ownership of the process.

- **Providing technical support from central levels to sub-national levels**

To ensure the effectiveness of the ESP formulation and implementation, MoEYS central staff could provide technical support to POE, DOE officers and school principals on ESP formulation and implementation through orientation, mentoring, and coaching programmes to improve their capacity to develop and implement plans and meet targets. At the first stage, this training would focus on awareness of national plans and how these should affect sub-national planning.

All stages should include easily accessible ICT resources, e.g. by using the proven method of QR code document access.

- **Provide budget support based on equity principles**

Implementation with insufficient budget allocation can never be fully effective. Firstly, an alignment of travel/expenses funding for fieldwork between POE and DOE levels should be implemented. MoEYS should consider the equity principle for budget allocation to Provincial and District Offices and schools, whereby those schools most in need of resources are also the schools which may be least likely to achieve target levels.

- **Review the D&D implementation mechanism to improve ESP implementation**

MoEYS should review, together with other relevant stakeholders (MoI and UNDP), the mechanism of management and organization of D&D implementation in Cambodia through conducting studies on D&D implementation. This would serve to evaluate the quality of education services under the management and implementation of education functions of the municipal administration.

MoEYS should also prepare final technical instructions on procedures on the implementation of educational functions transferred to district administrations. To review the procedures for using the budget, especially the allocation to support the operation of DOEs, in order to ensure that they have sufficient resources to carry out work effectively, and in particular an adequate and equitable monitoring and evaluation allowance.

MoEYS should establish a mechanism for the thorough management and capacity-building of education units in the provinces. This requires support to provinces and districts that assign education functions to the municipal administration. This will enable those sub-national entities to ensure adequate teacher deployment and strengthen the human resource

capacity of the municipal administration through training in administration, financial procedures and management.

5. Conclusion

The author has presented some initial findings as a case study based on a province with poor educational outcomes, showing how the perceptions of sub-national and school-level stakeholders relate to planning formulation and implementation. The paper also outlines some of the structural barriers present and how these affect different stakeholder groups and their ability to plan and implement planning effectively.

Based on these perceptions, some recommendations are provided for MoEYS to investigate further. The author notes that the qualitative nature of the study leaves room for further research in this area to see if the conclusions are applicable to the wider situation in Cambodia, or if there are regional variations.

References

- GPE / UNESCO IIEP. (2012). *Guidelines for Education Sector Plan Preparation and Appraisal*. Global Partnership for Education / United Nations Education, Scientific and Cultural Organisation International Institute for Education Planning.
- GPE / UNESCO IIEP. (2015). *Guidelines for Education Sector Plan Preparation and Appraisal*. Global Partnership for Education / United Nations Education, Cultural and Scientific Organisation International Institute for Education Planning.
- MoEYS. (1995). *Education Plan for 5 years 1996-2000*. Phnom Penh : MoEYS.
- MoEYS. (2018). *Education in Cambodia: Cambodia's experiences in PISA for development*. Phnom Penh: Ministry of Education, Youth and Sport.
- MoEYS. (2019). *Education Congress Report* . Phnom Penh: MoEYS.
- MoEYS. (2019). *Education Strategic Plan 2019-2023*. Phnom Penh: Ministry of Education, Youth and Sport.
- MoEYS. (2020). *Education Congress Report* . Phnom Penh: MoEYS.
- MoEYS. (2022). *Mid-Term Review in 2021 of the Education Strategic Plan 2019-2023 and Projection to 2025*. Phnom Penh: Ministry of Education, Youth and Sport.
- MoEYS. (2023). *Guideline on Provincial Education Strategic Plan Preparation*. Phnom Penh: Ministry of Education, Youth and Sport.
- OECD. (2020). *An Implementation Framework for Effective Changes in Schools*. Organization for Economic Cooperation and Development.
- Onn, S., & Hyojin, K. (2019). Challenges to Provincial Education Strategic Plan Preparation in Cambodia. *Cambodia Education Review*, 3(1), 98 –114.
- UNICEF and SEAMEO. (2021). *SEA-PLM 2019 latest evidence in basic education: Low performing readers in 6 Southeast Asian countries*. United Nations Children's Fund / South East Asia Ministers of Education Organisation.



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Article

A Review of the Local Life Skill Program and Role of Student Councils in Program Implementation

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Abstract

Knowing the importance of life skill education (LSE), a wide range of countries have mandated life skill education as a compulsory subject in their national curriculum. A local life skill program is adopted as one of the core subjects in the School Curriculum Framework 2016. The ministry of education, youth, and sport has paid great attention to the LSE in schools by developing a series of LSE policy frameworks and LSE implementation guidelines, aiming to educate students mainly from 4th to 12th grade. The goal of life skill learning is to improve of the well-being of children and adults, as well as teachers; therefore, they should be trained in the basic skills and soft skills that are necessary for effective living. The study used a mixed approach. The survey questionnaires and semi-structural interview questions were jointly developed by consulting with personnel from key departments such as the Department of Curriculum Development (DCD), the Vocational Orientation Department (VOD), the Provincial Office of Education (POE), and UNICEF development partners, ensuring that the collected data were insightfully reflective of the real context of the implementation program before data collection. Of the five provinces, including Takeo, Kompot, Siem Reap, Battambang, and Steng Treng, six lower secondary schools in each province, strongly supported by the UNICEF development partners in the LSE subject, were chosen for study. The result showed that the students were at a satisfactory level in local life skills; they thought that this subject was very beneficial for both their daily lives and their future. Amongst the topic selections for LSE learning in school, agriculture was still the most popular, followed by drug addiction, healthcare, environment, and climate change, respectively. The majority of teachers, accounting for 93%, believed that climate change was very important for integration into local life skill education. Regarding the teaching method for local life skills, a large number of students faced several major constraints particularly in the research step when the teacher applied a six-step process of learning. It was also identified that the student council has played a vital role in local life skill education. In addition, school peer support was of value and of

great benefit in strengthening the capacity of school leadership in local life skill education and in providing scalability.

Keywords: *Life skill, Basic skill, Soft skills, Career skill, Student council, 21st Century Skill*

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1. Introduction

Education can drive children to achieve their dreams and lead fulfilling lives. Having skills is a crucial thing in any young person's life and it is also a game-changer in the context of economics, education, and overall development in any developing country. Skills enhancement is a key resource for providing and securing jobs, especially for youth, and for adapting to technological change. In today's world, children need to develop both hard and soft skills, ensuring that they are more adaptable and resilient in living harmoniously in an ever-changing society; they also need to cope with many emerging issues, including climate change, pandemics, poverty, unemployment, and lack of job security as well as social, emotional, physical and psychological issues, due to industrialization, globalization, and the fast development of science and technology. Knowing the importance of life skill education (LSE), a wide range of countries have mandated life skill education as a compulsory element in their curriculum, and have various definitions according to their individual educational contexts (Prajapati, 2017). Sabonati (2015) defined life skills as a group of mental, social, and interpersonal skills that can help people make informed decisions, communicate effectively, and develop their coping and self-management skills all within a healthy and productive life. The goal of life skill learning is to improve the well-being of children and adults as well as teachers; therefore, they should be trained in the basic skills which are necessary for effective living. Four main areas of necessary competencies have been identified: 1) identity development or purpose in life, 2) problem-solving or decision-making, 3) interpersonal relationships, and 4) physical health (Zipora Shechtman et al., 2015). UNICEF (2003) categorizes life skills into three general categories with sub-categories which are presented as follows: 1) communication and interpersonal relationship skills including interpersonal relationships, negotiating skills, empathy, cooperation, group work, and advocating skills. 2) creative skills and critical thinking skills including problem-solving and decision-making. and 3) coping skills and personal management skills including the skills to manage emotions and stress management skills. In another categorization of life skills by UNICEF (2007), life skills are divided into 10 components: Self-awareness, Empathy skills, Effective communication skills, Interpersonal skills, Coping skills, Emotional management skills, Problem-Solving skills, Decision-making skills, Creative thinking skills, Critical thinking skills, and are incorporated into twelve components of soft skills in the local life skill (LLS) syllabus [Figure 1] (MoEYS, 2019). To realize the success of the LSE program, teachers must be competent, skillful, and personable (self-confidence) (Gazda et al., 2001). As suggested, teachers need at least two years of training before they can master LSE (Hord et al., 1987) because that training would help teachers be confident in influencing students' functioning and achievements.

Teachers who have high self-confidence are more motivated to help students who show learning or behavior difficulties and are more optimistic, democratic, and humanistic in classroom management than teachers with low self-confidence (Zipora Shechtman et al., 2015).

Taking into account the essential contribution of life skills to children's growth and development, life skill education (LSE) has been integrated into the national core curriculum in primary and secondary schools in 145 countries and it is a compulsory subject in 70 countries, including Cambodia (UNICEF, 2012). Currently, there are 185 schools (43 primary schools, 142 secondary schools) in five provinces of Cambodia with the support of UNICEF implementing a local life skill program with a new teaching method – problem-based learning ‘PBL’ (Jesse, 2021). Evidence has shown that life skills education (LSE) enhances critical thinking abilities which directly impact people’s daily lives, careers, and future planning (Albertyn, 2004), increases mental and physical health, pro-social behavior, and decreases behavioral and social problems and self-destructive behaviors (Ramesh and Farshad, 2004), improves interpersonal relationships and reduces aggression and behavioral problems (Smith, 2004), and prevents a wide range of issues and stress such as alcoholism, sexual abuse, smoking anti-social acts, substance abuse, teenage pregnancies, violence, and bullying, whilst, in turn, it promotes self-confidence and self-esteem among adolescents (Puspakumarage, 2013). Life skill education is regarded as critical for meeting the needs of children and young people growing up in the new era of globalization and increased interconnectedness. Young people increasingly require the knowledge, skills, and attitudes necessary to navigate the world of work, be active in their local communities, and become global citizens. Hence, LSE education will help school-aged children live more fulfilling lives.

In the context of Cambodian education, the local life skill program has been adopted as one of the core subjects in the School Curriculum Framework 2016. The ministry of education, youth, and sport has paid great attention to LSE in schools by developing a series of LSE policy frameworks and LSE implementation guidelines, aiming to educate students mainly from 4th to 12th grade (MoEYS, 2006, 2016, 2019). According to the initial LSE policies, the ministry aimed to educate all learners with quality and equity, knowledge, skills, behavior/attitude, expertise, and the ability to effectively respond to social needs. It is separated into two main categories: 1) Basic skills, which covered three domains: general knowledge (Khmer, Maths, Environment, Culture, Health, Civics, Community Knowledge, etc.), soft skills (21st skills), and personal value (behavior/attitude); 2) Career skills, which also covered three domains: basic skills, technical skills (Agriculture, Handicraft, Service Industry, etc.), and entrepreneurship (Marketing, Job Seeking, Career, etc.) [Figure 2]. Except for the general and technical high schools (GTHSs) which aim to provide hard skills in technical and vocational education, the LSE program is also integrated as a compulsory subject in almost all of upper secondary education from 10th to 12th grade. Currently, there are 20 general and technical high schools (GTHSs) in Cambodia, delivering technical education such as Mechanics, Electronics, Electricity, Agronomy, Animal Husbandry, Food Processing, Information Technology, Tourism and Hospitality, Landscape Design, Accounting, and Management. Seeing its indispensable role in improving human resources, Cambodia has set out a short-term vision to have at least one technical school for each province and a long-term vision to have at least one technical school for each district for youth upskilling and reskilling programs.

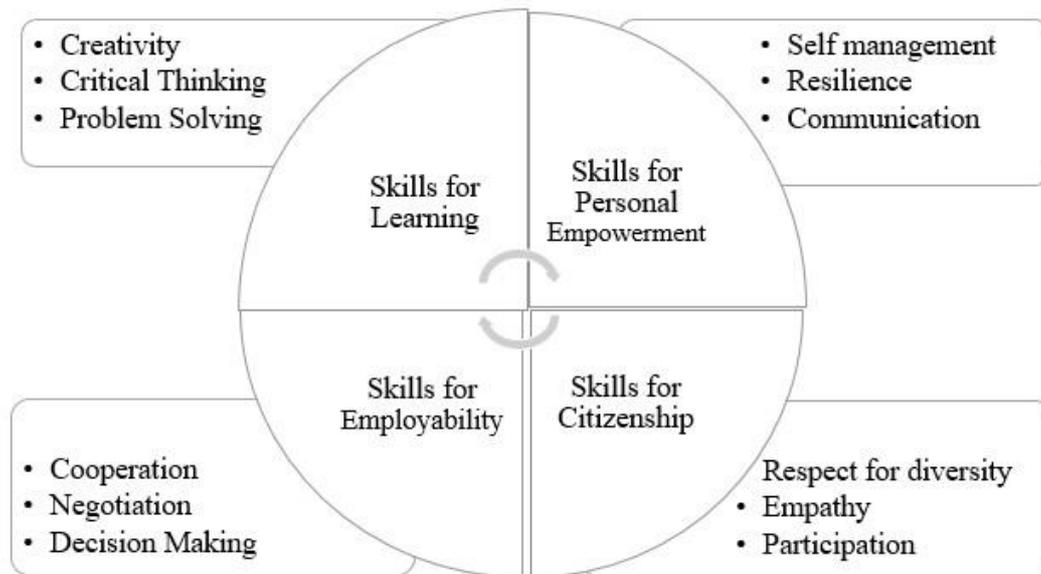


Figure 1: The illustration of twelve soft skills in the local life skill syllabus (Adapted from MoEYS, 2019)

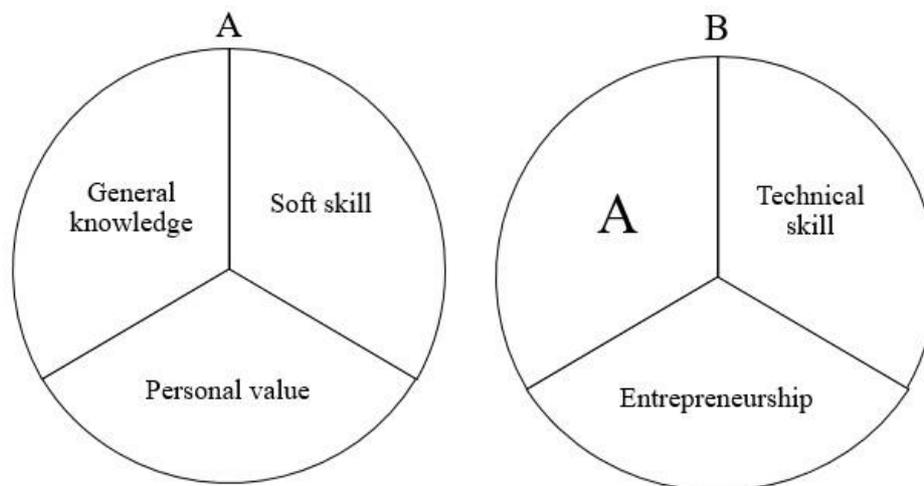


Figure 2: The schematic illustration of Life Skill Education: (A) is denoted “Basic Skill,” which is integrated into the national curriculum from 1st to 12th grade, whereas (B) is denoted “Career Skill,” which is taught from 4th to 12th Grade (Adapted from MoEYS, 2016).

According to the previous study on LSE, Home Economics, including cooking skills and embroidery skills, and simple clothes making, was found to be the most favorite subject (94%) in the five subject areas, followed by Agriculture (~81%), Art (~46%), Workshop (34.2%), and Computers (10.5%) in lower secondary education. In addition, the major constraint in LSE was the shortage of specialized teachers; for example, 84.6% of respondents claimed that they did not have LSE specialized teachers, hence, most LSE classes were instructed by different subject teachers such as science teachers (Maths, Biology, Chemistry), accounting for 70% and social teachers (Khmer, History, Geography, English), accounting for 65% (MoEYS, 2019). Paola et al. (2012) also found a similar result of LSE implementation regarding the challenges in LSE

service delivery in basic education in Cambodia, with insufficient specialized teachers, a shortage of technical and financial support, a lack of textbooks, poor community involvement and school leadership in LSE, as well as a lack of awareness of the policy framework and significance of LSE.

In addition, life skill education is a crucial part of promoting climate adaptation. It helps all learners understand and address the impacts of the climate crisis, empowering them with the knowledge, skills, values, and attitudes needed to act as agents of change. Climate change means a change in climate attributed directly or indirectly to human activity, which alters the composition of the global atmosphere and is observed over comparable time periods (UNFCCC, 1992). Climate change is likely to influence not only the environment itself but also other aspects of human livelihood including society, politics, and the economy. For example, climate change brings about higher temperatures; change precipitation; raise sea level; and also intensifies rainstorms, flood, droughts, and heat waves (IPCC, 2001; Jabareen, 2013). It was reported that natural disasters caused by climate change, such as droughts, floods, hurricanes, and lightning remain challenges in Cambodia and have seriously affected people's livelihoods across the country, especially people in remote rural areas, lowlands, and near to waterways. However, natural disasters such as storms with strong winds and lightning have caused 79 deaths and injuries while also killing 69 cattle and damaging 11 homes in the first six months of 2022, representing a significant decrease over the same period in 2021, which had 164 deaths and injuries (Khouth, 2022). While there is an emerging awareness of the current and potential impacts of climate change on education provision and learning, it is also clear that education (formal and non-formal), from primary to tertiary and adult education, has an important role to play in addressing this change. Education is recognized as an important first step in increasing resilience. One of the ways to help the education sector as well as other sectors from the negative impact of climate change is to transform life skill education from the conventional version to a new version that adapts to climate change and aims at supporting and enhancing resilience against climate change. Once the life skill curriculum has been reformed, a new generation of human capital (students) will be equipped with knowledge on why and how to cope with climate change.

In order to cope with the challenges, especially the severe shortage of teachers, the researchers aimed to investigate the role of the student council as an alternative source of exploitation in LSE program implementation in schools. It is reported that many student council leaders in Cambodia are already engaging in peer-to-peer learning, largely informally, but in some cases through formal study groups set up outside of class hours. The study also identified the status of LSE implementation and the impact of school-to-school and province-to-province partnerships in promoting local life skill education in lower secondary education to document good practices, lessons learned, and challenges for future possible scalability.

2. Material and Method

The study used a mixed approach. Questionnaires and semi-structural interview questions were jointly developed by consulting with personnel from key departments such as the Department of Curriculum Development (DCD), the Vocational Orientation Department (VOD), the Provincial Office of Education (POE), and UNICEF development partners, ensuring that the collected data reflected the real context of LSE implementation before data

collection. Of the five provinces, including Takeo, Kompot, Siem Reap, Battambang and Steng Treng, six lower secondary schools; ranked basic (2), moderate (2), and good (2) in LSE performance and strongly supported by the UNICEF development partner in LSE program, were chosen for the study. Within each province, the respondents of each school were the school principal, teacher, student council, local expert, and provincial and district education staff in a total of 68 samples. Only teachers who were in charge of LSE education in the school were selected as part of the sample. Moreover, the researchers also sought to interview key persons at the national level who were relevant to the implementation of the curriculum of life skills and climate change such as DCD, VOD, Department of Youth (DY), and Teacher Training Department (TTD) with a total of 4 samples. The previous research related to LSE was reviewed to develop a thorough understanding of the current status of the life skill curriculum, practice, and role of council involvement as well as the current status of climate change in the school curriculum.

During a field visit for data collection in May 2022, a few major challenges had been identified. Firstly, school just resumed in January 2022, after the COVID-19 closure, therefore, all SLE-supported facilities in school had yet to be well-restored and rebuilt. As noted, most of the school gardening areas for agricultural practice in school were under rainy water and weed cover. The facilities in the warehouse were dusty, reflecting that the school had not used them for so long due to the impact of the school closure. Secondly, some school principals and teachers were in a busy period during the 5th mandate district council election on June 5, 2022, causing a major constraint to make an appointment with them. Thus, to help solve the issue, the researchers used telephone or online interviews as an optional means to complement the field visit.

3. Results and Discussion

After the analysis of the data, a number of key areas of good practice and lessons learned from LSE program implementation in the selected lower secondary school were identified as follows:

3.1 The satisfaction of LSE learning

The vast majority of school principals, teachers, students, PoEs, DoEs, and other relevant parties agreed that they were strongly satisfied with the LSE program within their school. A school principal and teacher said, “The students were very keen and curious to learn the LSE because the teaching method of the subject is very different from other subjects. The topic selection and the process of learning were a result of the consultation of all relevant stakeholders, including the school principal, school management committee, teachers, students, the local community, and local experts. The students can learn both inside and outside the classroom. When they are inside the class, they learn the theory. When they are outside the class, they learn through real-life practice and research, which attracts their interest a lot. The teacher and student are very happy throughout the process of learning. After learning, the student has a positive change in attitude, new knowledge, creative ideas, collaboration, interpersonal skill, problem-solving, courage, opinion expression, critical thinking, curiosity, community involvement, and young leadership skill in particular.” In regards to the student’s viewpoint, a large number of them said that they could particularly use life skill education like

agriculture for their livelihood in the future, and understand issues such as daily living, community development, crop protection, the environment, waste management, and climate change. The student also attained various soft skills and knowledge in real life, such as courage when interacting with their communities, presentation, teamwork, leadership, creativity, and good morality. Seeing the benefit of LSE learning, numerous of them sincerely proposed that the school increase the teaching from one to two hours per week, the number of LSE teachers, and the amount of learning material.

Besides, the satisfaction with the life Skills Education program, the results of the interview indicated that PoE understands the advantages of the implementation program. PoE both understands the reason why the Ministry of Education put life skill programs in as extra-curriculum and is aware of the skills students will get from this program, as evidenced by the following comments:

“This program is very useful for the student to know a variety of learning methods, particularly in conducting research. Skills are very important for students before entering the job market because they help them know how to solve problems. Students will gain knowledge, skills, and confidence in their abilities. After studying life skills, students will be able to improve their learning skills (innovation, problem-solving), employability skills (cooperation, negotiation, decision-making), and personal empowerment skills (self-management, resilience, communication). PoE

Additionally, the findings from the Life skills expert officer at PoE and DoE revealed similar answers to those of the PoE. They focus on the important points of the program for developing student learning skills and some issues in implementation as follows:

“This program contributed to the critical thinking and soft skills of students. Students get more skills such as communication, encouragement, participation, analysis and reflection, and collaboration,” PoE

“Because the community, students, and teachers are not interested in and involved in the life skills program, the implementation of the program is very difficult. Some students think that it is not an important subject (there is no subject in the national exam, etc.). In schools that have implemented LSE, both teachers and students are more responsible, and students are braver and have more interaction with their teachers,” DoE

To respond and further explain the results from the qualitative research, the results from the consultative workshop of the representatives from 8 departments and 5 provinces, including PoE, the school leader, showed that the life skills program directly impacted the learning needs of students and the community. It brought up the challenge and the opportunities in the community to address and share these issues to create innovation in their community. This was because LSE provided an opportunity for collaboration between schools and communities to select LSE topics through school-community meetings. The representatives also agreed on the effectiveness of the implementation of LSE as follows:

- Students can develop knowledge, skills, a positive attitude, and values
- Expand career opportunities with technical skills through the exploration of information.

- Sharing the experiences with students and the community
- Give students the opportunities to learn research methods including collecting information, solving problems, documenting, sharing, and presenting information to the community
- Creating new jobs in the community is an important part of contributing to community development.

Furthermore, the representative from Stung Treng also emphasized that after the LSE program implementation, he observed that both schools and communities are willing to work together and participate in community work.

In all, LSE learning has value and benefits for upgrading the student's interest in learning and skills. The students are more confident in using LSE skills for their lives in the future; therefore, the school should create a better learning environment (school and community support, teacher's absence minimization, and discipline), maximize the LSE teaching hours, and increase student, teacher, and community involvement to support LSE learning.

3.2 The topic selection in local life skill education

As per the ministry's LSE implementation guideline, the school had to select two different topics annually for local life skill teaching. The first topic was taught in the first semester and the latter during the second. The topics were encouraged to be selected by participation from the various background of stakeholders such as school directors, teachers, students, and the community. However, according to the interviews, the topic selection process was found to be different from school to school. Some schools followed the guidelines, while others did not. In turn, they implemented the program based on their actual needs and local context. As noted, in any school that was described as having poor participation from the local community, the school director assigned the topics by consulting with the LSE teachers and students aligning with each grade. The school principal selected the topic through participation from the students, teachers, and community. Any topic that received the highest number of votes would be chosen. Normally, the topics had to be ready at the early beginning of the school year. According to the data [Figure 3], agriculture was still the most favorite topic among LSE learning in school, followed by drug addiction, healthcare, environment, and climate change, respectively., whereas home economics like cloth weaving and food and confectionery has a very low percentage, which was opposite to the previous study (MoEYS, DoPo, 2019). However, when it is combined with other topics in Figure 3, social topics are relatively more popular compared to livelihood topics (agriculture). From the interview with school principals and teachers whose schools taught agriculture, they said that agriculture is the most attractive topic as it is a fundamental life skill and is easy to link with the local community and daily life. Students were seen to be very interested and enthusiastic about engaging with the school garden because they could use this skill for their daily lives support as they would learn how to grow vegetables or look after animals. From the student's perspective, they also had high hopes of using agricultural skills in their lives when they finished their study. Interestingly, it was noted that some schools put agriculture instead of using LSE in the school timetable. Hence, DCD needs to work with the general secondary education department (GSED) to make sure that the school timetable is aligned with the school curriculum – the subject is no longer agriculture, it needs to be replaced by LSE.

Moreover, a large number of respondents replied that they support the integration of art and health within life skill education because they are all simple career skills.

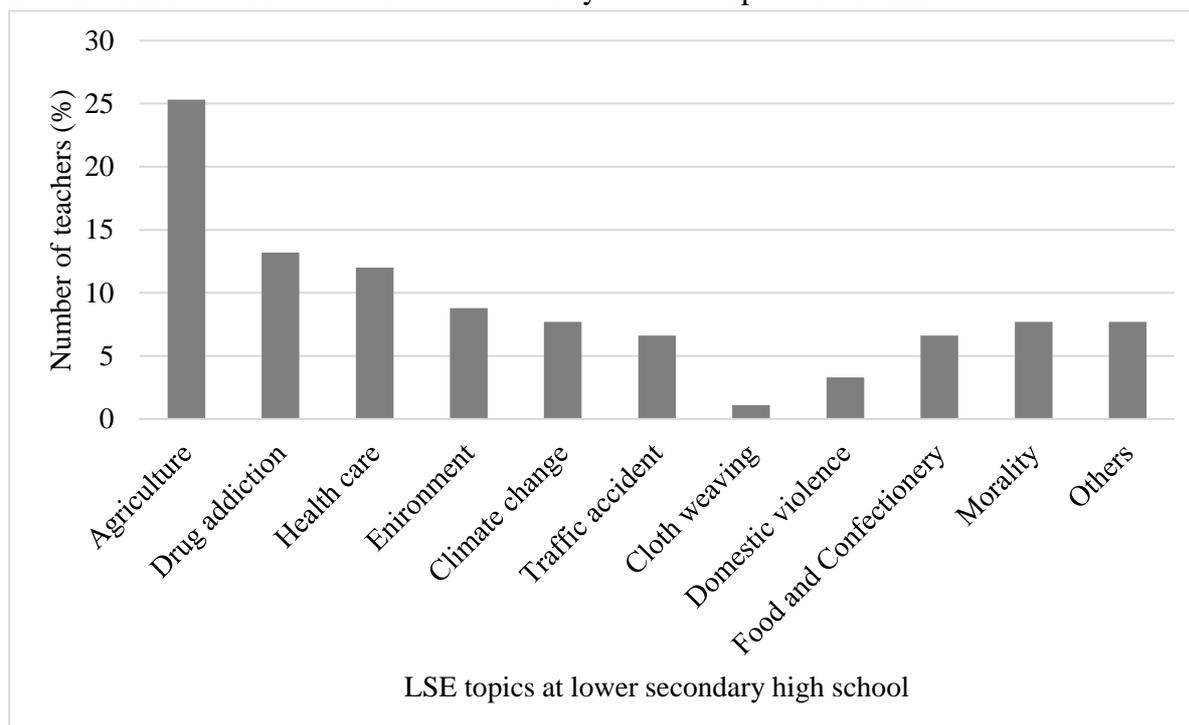


Figure 3: The popularly selected topics of local skill education in the academic year 2021-2022

3.3 Teaching method

Local life skill education was encouraged to use “Problem-based learning (PBL),” which has six key principles in teaching preparation: Understanding the topic (inquiry process), Collecting Information, Analyzing the information, Developing an outreach Plan, Implementation of the Plan, and Reflection and Evaluation (MoEYS, 2019). PBL is an inquiry learning technique that encourages students to explore, observe, explain, and learn how to solve real problems in their daily lives by using evidence-based research. Regarding the teacher’s interviews, they all stated, “The subject of local life skill education was taught both in theory and in practice. The students were excited to learn when they could put theory into practice inside and outside school. The students were inspired to integrate into the community to learn about real-life problems. For example, one teacher said his students visited the chicken farm once every month. They needed to interact with the local community, local experts, and all stakeholders in order to collect and analyze the data for presentation. He accepted that local life skill was not easy to teach when we follow the six-step process, but it was very useful for students to strengthen their knowledge, real-life experience, and soft skills.” As observed, the six-step process is difficult to apply for teachers. From the interview with students, a large number of them faced several major constraints particularly in the research step because they did not have enough material and time and it was difficult to meet local experts and community members due to a lack of coordination and involvement from teachers, who were unfamiliar with the learning environment. They acknowledged that LSE was important to their lives, but at the same time, they also made a complaint about teacher absence, learning support, and time.

According to the interviews of PoE, DoE, and expert officers, the opinions were as follows:

“Life skills education has many good points that allow students the opportunity to study, to research, and to learn from a method of learning by research (study linked to practice). We can integrate and apply this 6-step learning method to other subjects (real situations) and give students the ability to research any lessons that can be studied at any given time” Expert officer.

“We can integrate social studies. We can incorporate the 6 teaching steps such as identifying the topic, data collection, information analysis, planning, implementation, and reflection on the chemistry subject,” PoE

“Life skills are a part of education,” DoE

Hence, they requested the school, community, local experts, and all stakeholders to actively support and participate in the learning and teaching with new methods as instructed by the ministry, as well as increase teaching hours from one to two hours per week.

3.4 Student council

Student councils have played a vital role in mentoring, safeguarding, coordinating, and monitoring their fellow students to keep them on the same track. The purpose of establishing a student council is to follow the guidance of a national education policy and to improve school security management, school policy implementation and development, and school environment management with the common theme, “Be united to develop our school.” Their daily duties include monitoring school security, students’ learning performance, health, sanitation, environment, and so on. Their representative is always invited to make a public speech on a range of topics such as study performance, school discipline, and the environment after respecting the national anthem in the morning. Additionally, to highlight the importance of strengthening school security and safety before, during, and after their school day, the principal and his board committee have branched out another student security council to ensure safety, orderliness, and cleanliness in the school.

In some schools, all students are members of the councils. Each class has five representatives who are sometimes elected but sometimes appointed. Students’ representatives express their enthusiasm for being on student councils although they say it is stressful at the beginning due to the difficulty in allocating time. Aside from student councils, there are other opportunities for students to be involved in volunteer and leadership roles; these include volunteering for my Community’s (VMC) clubs, children’s community groups, and scouts. According to answers from schools, students showed better behavior, better cooperation, and better leadership after being taught LLS knowledge. Students wish to have more written guidance on activities and they show a willingness to implement a greater diversity of activities if written guidance, training, and more support from adults were available.

According to an interview with a school headmaster, he said, “to make the team active and effective, the school has to write down a clear policy and strictly control its implementation, especially at the initial stage. After some years of implementation, the school has no longer any concerns about the failure of the security policy because the students have clearly allocated tasks.” He continued, “at present, the security council directly enforces the school regulations and rules and it has greatly contributed to developing the school as it helps maintain security and safety, orderliness, and cleanliness. They do not only engage in peer mediation, but they

also report to and get information from the school management committee.” Regarding the peer-to-peer learning mode of local life skill education, they were very active in school activities from the topic selection process to the presentation. They were leaders in the group and school. For example, they acted as a lead in guiding, interacting, and coordinating their team to take a site visit with the local community to collect the data. Once the student council was established, local life skill education was smoothly implemented. They could work independently, help their peers, and assist the teacher a lot. After learning the local life skills, they knew how to solve the daily problem, knew how to do research via the internet or library, and more importantly, they knew how to work and participate in a team by building a strong sense of love, solidarity, and courage, said the school principals.

Apart from this, the result of the consultative workshop also showed that the student council contributes to life skills education programs with discipline, environment, hygiene, social work, coordination, and monitoring of students in schools. For example, the school management has organized a clear structure, and assigned responsibilities. The student council performed its role very responsibly, said the Kampot representative. Importantly, the “growing mushrooms” topic was an example of one of the outdoor activities, in which students could learn to plant, create and provide compost, store compost, fertilize, detach spores, etc. Furthermore, the Takeo representative also emphasized that student councils can help invite the community to participate in the topic selection meeting. They also participated in the topic selection as well as communicating with local experts to teach, present, or collect data, and worked with all stakeholders to provide feedback (solve problems) through the events, forum, debate, etc. Along with these abilities, the student council can lead the development of life skills on their own and it will continue next year and for years after, with the support of the school through extracurricular and outdoor activities by organizing a project implementation club to address both issues with the support of a teacher.

3.5 School peer-support for scalability

School peer support is a good model for local life skill program scalability. According to the interview, the overwhelming number of PoE and DoE strongly advocated school peer support as an effective mechanism for assisting with low performance and unfamiliarity with local life skill education. A better LSE school could help by providing an example of best practice via online or offline training, school visiting, or orientation. According to the interview, one DoE official said, “If any school wanted to improve the quality of LSE learning performance, my team and I were very eager to help with support, including technique, strategy, and experience as much as we were able. So far, with the support from the vocational orientation department and UNICEF, our school located in Siem Reap has helped share best practices within schools in Battambang province.” At the school level, a large number of school principals supported the mechanism, while some were reluctant due to inadequately supported resources: specialist teachers, facilities, budget, time, and teacher training. However, they all believed this mechanism was a good means of assisting each other, and there were willing to share. For example, a school principal said, “Although our school currently does not have sufficient financial resources, we could manage to help our school community by sharing our best practices and teaching methods on local life skill education as well as learning from each other.” She continued by saying that local life skill education was very beneficial for the

student, school and community, hence, local life skill education should be carried out nationwide among schools.

The optimal way to promote local life skill education was to highlight the significance of local life skill topics and their benefits; otherwise, it would be difficult to motivate students, teachers, local experts, and the local community to be involved. Thus, schools are encouraged to produce videos on LSE good practices to share with other schools and provinces. Technically, the students tended to enjoy learning outside the class or in their local community; however, when there was a lack of guidance and coordination from the school, they would lose interest in their learning. Therefore, school peer support was of great value and benefit to strengthen the capacity of school leadership in local life skill education and to support scalability.

In addition to this finding, the result of a group discussion by the Battambang team showed that both school principals and life skills teachers had enough competency and technique in the implementation of life skills education programs. They mentioned the importance of hard skills (agricultural skills, construction work, etc.) and soft skills (sharing from teamwork, leadership,...) which are part of the life skills education program. In regards to practical skills, the student council at Samlot High School assisted teachers with various assignments, including monthly tests, beekeeping, agricultural activity, construction work, STEM Life Skills practice in Chemistry, and robotics. However, the Kampot team leader showed that at the school level, both the school principal and teachers had limited knowledge and technique to share[...] and that they needed more training for teachers, more resources, and a greater budget.

3.6 Climate change integration in local life skill subject

Raising awareness of the impact of climate change on livelihood and the environment is very important, especially for students so that they know how to protect society and the environment. Cambodia is one of the countries which heavily relies on the agricultural sector, sharing 25% of GDP (World Bank, 2021). Therefore, raising awareness of climate changes, including floods, drought, storm, sea level elevation, etc. to protect the environment and natural resources from disaster risks while protecting sustainable agriculture and people's livelihood is vitally important. According to the interview, every respondent agreed that climate change exists and impacted their lives and work. Therefore, there are a substantial number of topics in the life skill study program, about 1 in 6 of the total number, related to climate change. A positive sign of raising awareness of protection from natural disaster risks was mentioned by the school principal, "Students should know the root cause of environmental pollution and climate change from a global perspective. Then they would be able to know how to contribute to protecting the community and the earth." As observed from the interview, climate change was added as a new subject amongst the local life skill subjects this year with topics such as the impact of drought on crops, environmental pollution, tree plantation, and waste management.

Climate change is a global issue. Based on the respondents, the majority of teachers, accounting for 93%, believed that climate change needed to be integrated into local life skill education. However, the major constraint is that it will require a good teacher who comprehends the global knowledge related to environmental pollution and the industrialization of developed countries. In the interview, the school principals stated, "Their teachers did not come across

climate change training. This was one of the major constraints on teaching. Thus, they sincerely requested to provide a training course, and documents and to share experience on climate changes for life skill teachers.”

In addition to this, the results of the consultative workshop showed that the world’s current issues such as climate change and mental health caused by COVID-19 could be the subject of life skills with the following additions:

- Strengthen the implementation of existing lessons, especially in the subject of Earth Science, Environment, Geography, etc.
- Adding in science subjects at the elementary level,
- Create a topic separately based on existing resources (teachers, experts, and research through technology) and involve stakeholders
- Encourage students and the community to study those topics, for example, reducing the use of plastic /foam bags, saving electricity, greenhouse gas emissions, and deforestation
- Study the effects of climate change such as floods, storms, and droughts...
- Maintain awareness of the importance of health to the community
- Find an expert to help teach and provide additional support.

3.7 Implementation of Life Skill program

The result of the implementation program was crucial to building an effective program through learning skills, integrating the teaching method in curriculum studies, and improving the shortage of LSE program resources such as teachers, LSE trainers, facilities, and documents. The interview results with PoE, DoE, and expert officers revealed that they disseminated the results from project research on the life skills learning program. They not only played a very vital role during the practice program but also sought support from other sources, as mentioned in the following paragraph:

- *Annually, I disseminate information on the life skills programs or the implementation results including social issues and career issues. I played a role as a facilitator in the training course for teachers and fundraising for the implementation life skills program, said PoE.*
- *I took part, it was very helpful for the students in their personal growth and adaptation to the community. I participated in the selection of school topics and strengthened the implementation of life skills program through meetings [.....] with various schools and asked teachers to share their experiences at various stages, said DoE.*
- *I disseminated the information on the life skills programs during the workshop, monitored the implementation program, and shared the teaching methods in further groups. I organized capacity-building courses, and workshops, shared experience, and disseminated the implementation to local authorities and stakeholders, said an Expert officer.*

During the implementation life skill program, the school faced a shortage of teachers that were able to teach this extra subject. Therefore, the school had no choice but to request other teachers to teach life skills.

- *There were not enough teachers to teach life skills programs and it required students to learn and research on their own. Because of a lack of experts and teachers, schools decided to use other subjected teachers to teach life skills, said PoE*
- *Today we got support from another school in the implementation of the life skills program, said DoE*
- *Some local experts lacked the skills and methods to share information, said Expert Officer*

According to feedback from respondents about improving the life skills program, one of them thought that it was doing well because teachers were able to conduct their teaching. In addition, a local expert officer mentioned that the students studied the basic life skill education program by researching the topic they chose. These real-world issues should also be included in life skills education programs because everyone is concerned about both the current situation and the future. However, DoE had no concerns about the revised program and stated that climate change, mental health, and plastic use should be included in the life skills program.

Meanwhile, the PoE and DoE participants in the implementation program believed that both school principals and local life skills teachers had the technical ability and confidence to implement of life skills programs that could meet the needs of students and the community on their own. Moreover, they think that teachers can share good practices and learning techniques with other schools, as stated in the following statement:

- *I feel confident that we cooperated well between schools. We sent our staff to help other schools. The school needed technical support and experience to improve. I wanted students to study life skills education because it was important and responded to the Rectangular Strategy. Which states that by 2030 Cambodia needs to upgrade to an upper middle-income country; therefore, students needed strong skills to reach the goal, said PoE.*
- *So far, organized by the Department of Vocational Orientation and UNICEF, Siem Reap has helped Battambang participate in supporting and expanding LLS implementation, Expert officer.*
- *We exchanged visits between Samlot High School and Aranya Rainsy Secondary School in Siem Reap Province. We also exchange visits between Samlot High School and Sa Kaeo High School, Thailand, said the Battambang team.*

Besides, from this individual interview about the implementation of the life skills education program, the results of the group discussion showed that the majority of teachers and school principals attended training sessions on life skills programs and disseminated to other teachers, students, and the community the importance of life skills education at the local level. Based on the response of the Kampot team, school principals and life skills teachers have the knowledge, technical skills, and confidence to implement life skills education programs that meet the needs of students and the community themselves because they are highly committed, prepare a clear action plan via a meeting between the community, teachers, and student representatives to choose the topic. In particular, teachers had prepared a clear teaching plan for student involvement at each stage.

3.8 Challenges

Local life skill education was one of the core subjects in the national curriculum. Within this subject, the teacher is encouraged to use an inquiry-based learning approach in order to attain the 12 soft skills. Along with the local life skill learning process, there are several challenges as follows:

3.9 Lack of participation, coordination, and guidance in local life skill learning

The main aim of local life skill education is to encourage student to learn outside of class or participate in the local community to improve their soft skills. They need to study or research independently under the coordination of the school in their local community. The student would be able to interact with the local people to get information or data for analysis. Finally, they are asked to share their findings with their class. Any school which had good coordination from their teacher or school principal was found to be more successful in LLS learning. The students were more active and well-integrated into the local community. It was found that a number of schools did not have good coordination in LLS learning, which was a key reason the students lost the chance to interact with their local community. Most students earnestly requested that the school principal and teachers strengthen their coordination with the local community and local experts to create a favorable environment for students to learn in their local community. Moreover, regarding the interview, some teachers did not know the concept of “problem-based learning,” so they did not how to coordinate or guide the student’s participation in their learning; for example, some teachers stated that they had never guided the students with learning in the local community. These teachers thought that local life skills mainly focused on agriculture, hence they asked the student to grow vegetables in the school garden as the learning practices for this subject. Similarly, one PoE and DoE admitted that it is difficult to engage the relevant stakeholders in the implementation and dissemination of the life skills program. Therefore, it is believed that when there was stronger coordination, there would be more interactivity between the students and the community in building up the LLS learning environment.

3.10 Lack of knowledge of LSE implementation guidelines

The LSE implementation guidelines were comprehensively produced to fulfill the need for LSE teachers to improve their teaching and learning in their schools. From our observation, some LSE teachers have never known or read these guidelines, and they did not have an interest because it was not relevant to their specialized skills. The teachers who taught local life skill education came from various subjects such as English, Khmer, Physics, Math, Geography, etc. The current context, the way to recruit LLS teachers, is either voluntary or by appointment from the school principal to take a role regardless of their specialty and background. After the interview, it was revealed that because of unavailable teachers, the school principal and office staff took charge of local life skill teaching. As observed, life skill education in school was considered an elective subject due to a lack of knowledge of the LSE implementation guidelines, learning support, funds, community participation, and a shortage of teachers.

3.11 LLS teacher's capacity building

Although it was stated that 82% of the LLS teachers had been trained in a short course on life skill education, this was not sufficient to address the needs of teachers. From the interviews, some teachers said, “We were invited twice to take part in the LLS short course. We agreed that the short course was very important and helpful in upgrading our knowledge and way of thinking. Hence, we requested more training both online and offline means to improve our teaching capacity in local life skills. Previously, we did not understand a lot about the concept of local life skill education. After training and exchanging experiences with local school teachers, we realized that local life skill teachers needed to guide the students to learn with a local community to improve their soft skills. The students learned how to define and solve the real problems in their local community themselves.”

4. Conclusion

As identified from the study, the students were satisfied with learning local life skills; they thought that this subject was very beneficial to their daily lives and their future. Moreover, it was found that agriculture was still the favorite topic amongst LSE learning in school, followed by drug addiction, healthcare, environment, and climate change, respectively, where home economics like cloth weaving and food and confectionery were low. The majority of teachers, accounting for 93%, believed that climate change must be integrated into local life skill education. Regarding the teaching method of local life skills, a large number of students faced several major constraints particularly in the research step because they did not have enough material and time to support when they went to collect the data for analysis and it was difficult to meet local experts and community members due to a lack of coordination and involvement from teachers. They also made a complaint about teacher absence, learning support, and time. It was also identified that the student council has played a vital role in local life skill education. They were the most active components in topic selection and the process of learning. In addition, school peer support was of great value and benefit to strengthen the capacity of school leadership in local life skill education and to support scalability. However, there were some challenges identified, including a lack of coordination and guidance in local life skill learning, a lack of knowledge of the LSE implementation guidelines, and a need to improve LLS teaching capacity.

5. Key recommendation

- Local life skill education really needed strong coordination and guidance with the local community in order to facilitate the students learning. The improvement of coordination and guidance by the school with the local community is the most needed mechanism for a positive learning environment for students. Therefore, school principals, teachers, school management committees, local authorities, and other stakeholders should work closely and support each other to address this challenge.
- The student council played a vital role in the LLS learning process. They participated actively in the learning activities. The student council needs to be used to implement LLS, especially with respect to the environment, tourism, and agricultural sectors. They could work independently, help their peers, and greatly assist the teacher. Hence, the school needs to strengthen student councils or clubs to create a favorable learning environment. Peer-to-peer learning, whether through student councils or voluntarily, has been shown to have great benefits for both the learner and the teacher. Students not only improved their understanding of the course content, but also developed communication skills, teamwork, leadership, confidence, and respect for peers, which made the process more professional.
- The integration of climate change into the LLS is strongly supported by the teachers, principals, PoE, and DoE. However, the knowledge of teachers relevant to climate change is a challenge. Therefore, to make climate change a prioritized topic, more training should be provided. Alternatively, it is necessary to work with universities to give university students credit for a semester of teaching. Being a good teacher is important for success in almost every aspect of life. Cambodian university students, who have already clearly shown an interest, could be employed as climate change LLS teachers for a month, three months, or a semester of university credit. This might be appropriate to promote both science (ecology, forestry, environment, and biology) students as well as social science students of education. MoEYS could work with universities to build this program into the coursework for students.
- A school peer-support mechanism is overwhelmingly desired to scale up the local life skill programs in other schools. To better implement this, the core school should be provided more support in term of resources such as learning equipment, online and offline documents, short video clips, technical training, and funds.

References

- Albertyn, R, M. Kapp, C, A, & Croenewald, C, J. (2004). Patterns of empowerment in individuals through the course of a life skills program. *Journal of Studies in Education of Adults*, 33(2), 20-780.
- Gazda, G. M., Ginter, E.J., & Horne, A. M. (2001). *Group counseling and group psychotherapy*. Boston: Allyn @ Bacon.
- Hord, S. U., Rutherford, W. L., Huling-Austin, L., & Hall, G.E. (1987). *Taking charge of change*. Alexandria, VA: Association for Supervision and Curriculum Development
- Jesse Lee Gray (2021). Life Skills help students keep up with the times, <https://www.unicef.org/cambodia/stories/life-skills-help-students-keep-times>, accessed on 24 July, 2022
- IPCC. (2001). *Climate change. Synthesis Report*.
- Khouth Sophak Chakrya (2022). Natural disaster casualties stand at 79 for first half of 2022. <https://www.phnompenhpost.com/national/natural-disaster-casualties-stands-79-first-half-2022>, accessed on 23 July 2022
- Maryam Sabonati (2015). The relationship between life skills and self-confidence among primary students in Robat Karim city, *European Online Journal of Natural and Social Sciences*, Vol.4, No.1
- MoEYS 2019, Department of Policy, Strengthening the implementation of life skills education at lower secondary schools.
- NCCC. (2013). *Cambodia Climate Change Strategic Plan 2014–2023: National Climate Change Committee*. Phnom Penh, Cambodia.
- Paola, M., Lane, M.A., & Bredenberg, K. (2012). *Life Skills Practices in Cambodia A Review of Implementation by NEP members*.
- Puspakumara, J. (2011). Effectiveness of life-skills training program in preventing common issues among adolescents: a community based quasi experimental study (ALST). Presentation, Dept. of Psychiatry Faculty of Medicine & Allied Sciences Rajarata University of Sri Lanka.
- Ramesht, M., & Farshad, C. (2006). Study of life skills training in prevention of drug abuse in students. Lecture, The 3rd Seminar of Students Mental Health; Iran University of Science and Technology; Persian.
- Ravindra Prajapati, Bosky Sharma, Dharmendra Sharma (2017), Significance Of Life Skills Education, *Contemporary Issues in Education Research*, Vol.10. No.1
- Smith, E., Swisher, J., Hopkins, A., & Elek, E. (2006). Results of a 3-Year Study of Two Methods of Delivery of Life Skills Training. *Health Education & Behavior*, 33(3), 325-339. <http://dx.doi.org/10.1177/1090198105285020>
- UNICEF (2003, 2007). Which skills are life skills? [www.life skills based education](http://www.life-skills-based-education.org).
- UNICEF 2012. *Global Evaluation of Life Skills Education Programmes*. In Evaluation Office.
- Zipora Shechtman , Merav Levy & Judy Leichtentritt (2005) Impact of Life Skills Training on Teachers' Perceived Environment and Self-Efficacy, *The Journal of Educational Research*, 98:3, 144-155, doi: 10.3200/JOER.98.3.144-155

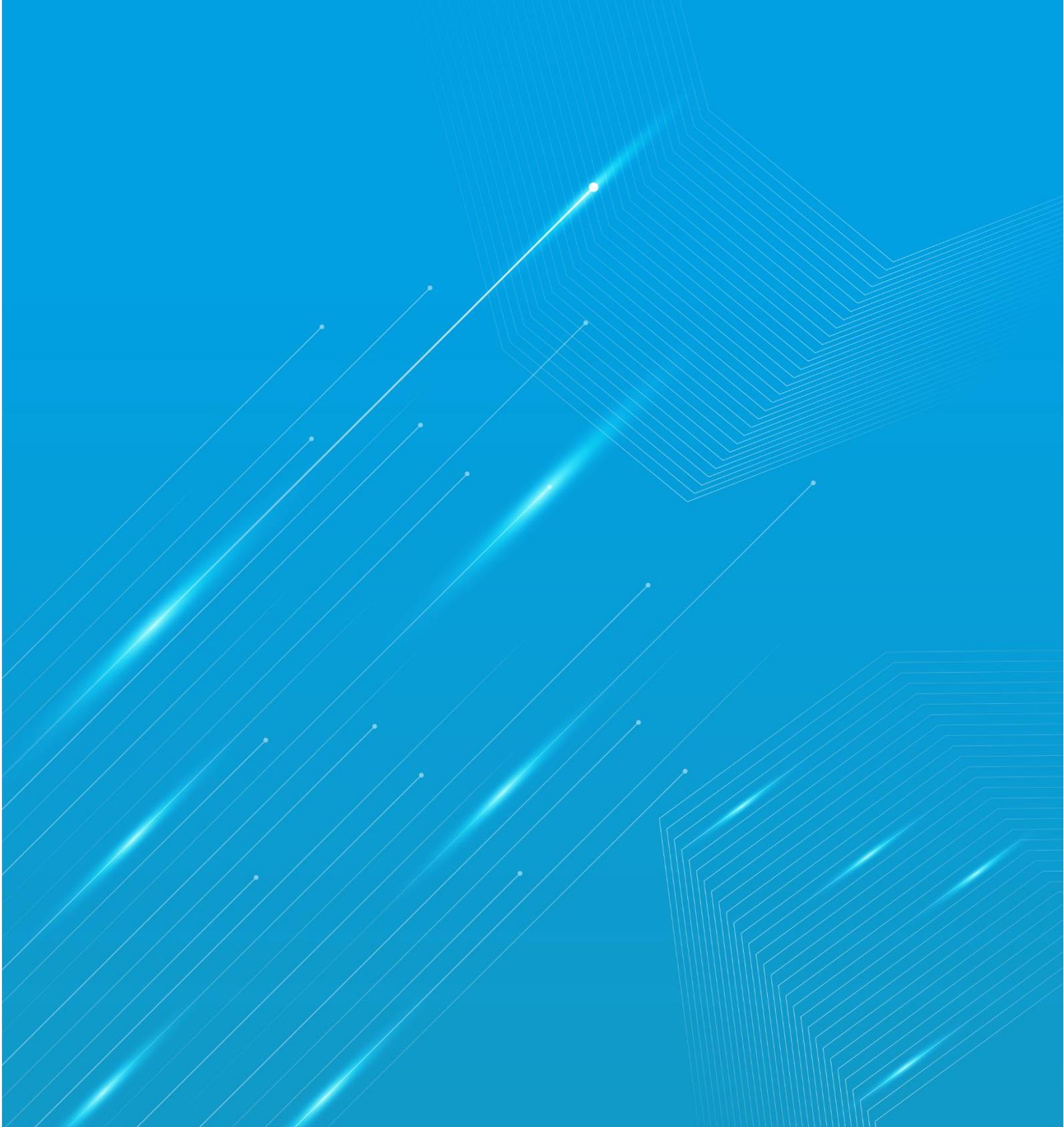
Jabareen, Y. (2013). Planning the resilient city: Concepts and strategies for coping with climate change and environmental risk. *Cities*, 31, 220-229. doi: <https://doi.org/10.1016/j.cities.2012.05.004>

World Bank (2021), Climate Change Overview, <https://climateknowledgeportal.worldbank.org/country/cambodia>, access on 15 July, 2022

ក្រសួងអប់រំ យុវជន និងកីឡា (២០០៦) គោលនយោបាយអប់រំបំណិនជីវិត

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