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**Karfafa
EdTech
A Nahiyar
Afrika:**
Nazarin Bincike



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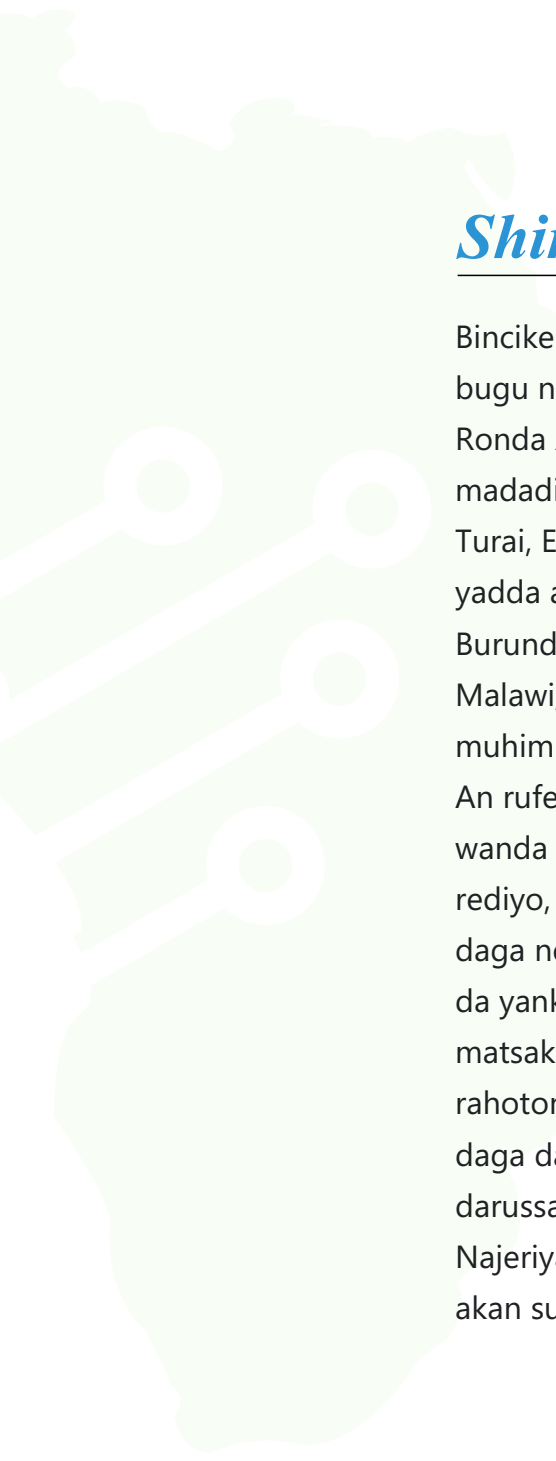
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Shimfida

Binciken mai taken "Harnessing EdTech in Africa Scoping Study" bugu ne na kungiyar yakin neman ilimi na duniya kuma Dokta Ronda Železný-Green & Hannah Metcalfe ne suka rubuta shi a madadin GCE tare da goyon bayan hadin gwiwar Jamus, Tarayyar Turai, Enabel da GIZ. . An gudanar da binciken ne don fahimtar yadda aka yi amfani da EdTech a kasashe takwas: Botswana, Burundi, Jamhuriyar Demokradiyyar Kongo (DRC), Madagascar, Malawi, Namibia, Rwanda, da Zambia. Don gano tasirin EdTech, muhimmanci sa, da kalubalen EdTech lokacin annobar korona. An rufe makarantu a duk fadin duniya, lokacin annobar korona wanda ya tilasta tsarin ilimi amfani da hanyoyi da dama kamar rediyo, TV, da hanyar yanar kizo, don baiwa daliba damar koyo daga nesa. Wadannan hanyoyin sun bambanta bisa ga kasashe da yankuna, musamman a kasashe masu karamin karfi da masu matsakaicin kudin shiga. Saboda haka, makasudin wannan rahoton shine don gano mahimman abubuwan da aka gano daga dabbaka EdTech a nahiya Afrika. Don tabbatar da irin darussan da za a iya koya da kuma duba ta mahangar kasar Najeriya wanda ba ya cikin kasashen da aka aiwatar da binciken akan su. Don amfana da manufofin kasar.



Gabatarwa

A duniyar mu ta yau, ilimi ya wuce bango hudu na ajujuwa, ya wuce manyan kwamfutocin tebura masu nauyi da kuma karatun gaba daya na tushen takarda zuwa tsari mai kyau wanda ke bai wa dalibai damar samun darussa a cikin sauki duk inda suke ta hanyar. Kere-kere fasaha kamar rediyo, TV, da kafofin sada zumunta ta yanar gizo (Apps, website, Zoom, Google Meet, YouTube da sauransu). Yayin da ake ci gaba da shigar da fasaha a cikin tsarin ilimi na duniya, ilmantarwa ya zama abin da akeyi a saukake, kuma ake samu a saukake. Dalibai suna koyo gwargwadon fahimtar su. Kayan aikin EdTech yana saukaka wa malamai aikinsu na koyarwa ta hanyar kirkira da tsara darussa na daidai ko jumallan mutane tare da hassasa kwarewar koyo da koyarwa wadanda ke haɓaka fahimta da damar koyo na duk dalibai, komai yawan shekarunsa.

Menene Fasahar Ilimi: Menene Edtech?

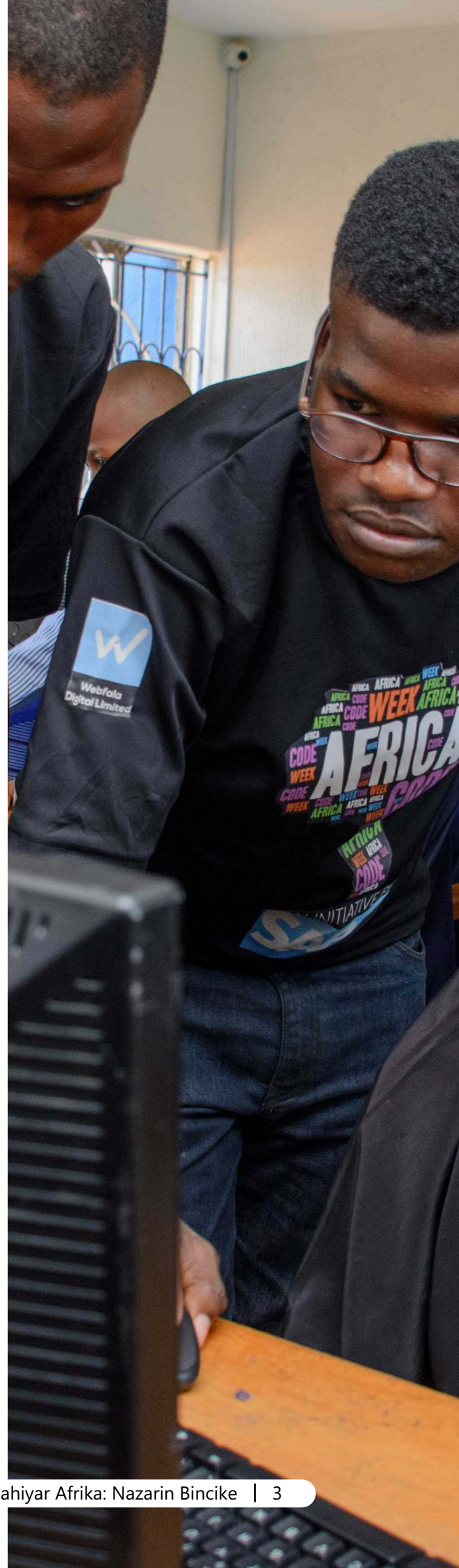
Rashin makawa ga wasu abubuwan da ka iya faruwa ba tare a shiri ba a fan nin na ilimi cikin takaitaccen lokaci, ne ya haifar da karin juyin juya hali da ya samar da sabuwar hanyar EdTech don ci gaba da

koyo. Hakan Ya tilasta wa cibiyoyin ilimi na yanzu, masu zuwa, da masu zuba jari kan harkan ilimi, tare da masu kula da harkokin ilimi a matakan ilimin (firmare da sakandare) rungumar sabbin manufofi, da yin tunanin amfani da starin EdTech a cikin sabbin kerekera da zai sarrafa tsarin ilimi.

Kamar kowane ɓangare na duniya, Edtech stari ne na saukake ilmantarwa da inganta aiki ta hanyar kirkira, amfani da sarrafa hanyoyin fasaha da suka dace don inganta cigaba da ilmantar da dalibai a yankin Saharar Afirka. Ta hanyar darasi na gaskiya na kama-da-wane, yana da sauki ga dalibai su ci gaba da shagaltuwa ta hanyar nishaɗin nau'ikan koyo. Ana kara yawan kwararrun kayan aikin Edtech kuma ana tura su azaman kayan aiki na farko don koyan nesa da kuma hanyar gaggawa na cigaba da ilmantarwa .[Akash2021]] A zahiri, sauye-sauyen yanayin zamantakewa da siyasa suna haifar da dama ga sabbin hanyoyin samun darussa. Misali, Najeriya ta fara Interactive Radio Instruction (IRI) a cikin shekara 1992 domin makiyaya su kara samun damar samun ilimi .[UNESCO. (2016). Tayi Amfani da Rediyo a cikin

Shirinta na ilimantar da Makiyaya, a Nigeriya, Bayan barkewar annobar cutar Ebola a shekarar 2014, da dama daga kasashen kudu da hamadar Saharar Afirka da suka hada da Jamhuriyar Demokradiyyar Kongo, Laberiya, Saliyo da dai sauransu sun fara shirye-shiryen rediyo na ilimantarwa. Yayinda annobar korona ta Covid-19 ta kara tsananta waɗannan yunkurin a duk faɗin yankin.

Amfani da sabon al'ada yayin bala'in cutar ta covid-19 shaida ce da ke nuna cewar a shirye muke da mu karbi sababbin sauyi game da yadda muke koyo, yadda muke hulɗa da abokan karatu da malamai. Babban manufar ita ce cimma burin ci gaba da koyarwa mai dorewa (SDG), Buri na 4 wanda shine tabbatar da samar da ingantaccen ilimi da zai inganta, da bada kuma koyo da cigaba da tafiyar da rayuwa ga kowa, daga nan har zuwa shekarar 2030. Duk da mahimmancin EdTech don cimma wannan burin, yana fuskantar kalubale masu mahimmanci waɗanda idan ba a gano ba kuma ba a magance ta hanyar samar da isasshen jari da ingantattun manufofin siyasa ba, zai iya kawo cikas ga ci gaban da ake samu. Saboda duniya na kara nisa daga tsoffin hanyoyin koyarwa izuwa sabbi. Saboda haka, ne yasa aka ciro wannan rahoto na 'Harnessing EdTech in Africa Scoping Study' da sauran nazarce-nazarcen da aka yi kan EdTech akan muhimman abubuwan da aka gano, da darussa da kuma nazarin shari'ar Nijeriya wanda ba ya cikin qungiyoyin neman shawarwarin manufofin.



Hanyoyin Da Aka Bi Don Gudanar Da Bincike

An gudanar da binciken ne ta hanya amfani da shaidu kan EdTech a nahiyar Afirka lokacin annoba, ta hanyar yin manuniya da nahiyar a stakanin nahiyoyin duniya da matakin kasa tare da mai da hankali kan abubuwan da suka hada da, mahalli, yanayi, karfi, rauni, dama, da barazanar EdTech a kasashen Botswana, Burundi, DRC, Madagascar, Malawi, Namibia, Rwanda, da Zambia.

Abubuwan Da Bincike Ya Maida Hankali Akai

- Na'urorin fasaha da akayi amfani da su wurin yada ilimi lokacin annobar sun hada da, (rediyo, intanet, takarda, wayar salula, talabijin, da sauransu),
- Samun damar yin amfani da fasaha, samuwar na'urorin fasaha, matsayin tattalin arzikin da zamantakewar al'umma, samun damar sirrin adana bayanai, Big Tech (Global North, amfani da kamfanoni masu zaman kansu kamar su Microsoft da Facebook), ilimantarwa na kudi, ilimantarwa da haɗin gwiwar jama'a da masu zaman kansu, koyarwa da koyo, horar da malamai, dalibi. abubuwan da suka faru, shigar iyaye a dama da su, ilimantarwa a gida, jinsi, labarin kasa an yi amfani da dukkanin wadan nan naya nan wajen gudanar da bincike. Har ila yau, binciken yayi nazari a kan bambance-bambancen da ke tsakanin kasashen da aka mayar da hankali a kai.
- Shaidu game da abubuwan da suka yi aiki da kuma wanda basu yi aiki ba.

Amsoshi Tambayoyin Nazarin Ke Neman Amsa Akai?

Binciken zai amsa tambayoyin guda uku ne kamar yadda aka bayyana a kasa.

- Wadanne fasahohin ilimi ne ake dasu a kasar?
- Ta yaya wadannan fasahohin suka inganta.
- ko kuma suka hana 'yancin samun ilimi a kasashen?
- Wadanne shawarwarin manufofin ne za a iya ba su? Ta yaya kasashen za su yi amfani da EdTech don inganta ilimi da samun ci gaba?

Tattara Bayanai Da Bincike

Yana da mahimmanci a fahimci yadda aka gudanar da binciken binciken EdTech a kasashen na nahiyar Afirka. An tattara bayanan ne a tsawon watanni biyu ta hanyar yin amfani da hanyoyin tattara bayanai iri biyu mai suna (KII) da daya nau'en mai suna SurveyMonkey. Binciken ya kunshi tambayoyi da akayi wa mutane 14 maza da mata, an dauki bayanan ne cikin tambayoyi da basa wuce mintuna 40, mafi akasarin tambayoyin an kuma yi su ne ta hanyar amfani da manhajojin zoom da whatsapp. An aiwatar da binciken a cikin harsunan Faransanci da Ingilishi inda akayi ta samun mastalar rashin ingancin hanyoyin sadarwa. An kuma samu wasu baya nan ta hanyar dandamali na kafofin watsa labarun GCE, da kuma karban sakuna ta yanar kizo a emel daga hannun mutanen da aka sani daga GCE ko kungiyar bincike. Ana daukar

wadannan mutanen ne da suka kasance kwararru a fannin ilimi kuma suna aiki da kungiyoyin jama'a waɗanda ke aiki tare da GCE. An yi la'akari da bayanan da aka samar ta hanyar KIIs daga mahallin tsakatsaki da na mulkin mallaka.

An kuma yi amfani da kididdiga don gabatar da binciken daga lokacin tattara bayanai. An yi amfani da kididdiga masu mahimmanci lokacin da aka yi la'akari da bayanai da aka samu daga KIIs da binciken da ya fito daga nazarin wallafe-wallafen nahiyoyi. Hakan na faruwa ne saboda bambance-bambancen da ke tsakanin abin da aka rubuta a cikin wallafe-wallafen kafin annobar korona, da yadda aka yi amfani da EdTech lokacin annobar korona da kuma abin da mutanen da suka rayu cikin annobar ke fada a cikin kasashe takwas da aka mayar da hankali a kai.



Edtech A Afrika Mastaloli

Da Suka Kawo Nakasu Kan Binciken

An gudanar da hirarraki cikin Ingilishi da Faransanci, ba da asalin yarukan waanda suka amsa tambayoyin ba.

An gudanar da binciken ne daga nesa ta hanyar amfani da manhajojin yanar kizo kamar Zoom da WhatsApp.

Wa anda aka tattauna da su sun kasance masu ruwa da tsaki a harkan GCE.

Mutum guda daya kadai ne aka yi hira da shi daga Malawi da DRC.

Masu bincike guda biyu da aka zaba don aikin mata ne. Dukansu sun fito ne daga Yamma kuma masu ra'ayin kasashen yamma.

An dogara ne da masu fassara don gudanar da tambayoyi da amsa tambayoyin binciken wanda hakan na nufin ba lallai bane an tattara dukkanin baya nan su.



Sakamakon Binciken

Sakamakon binciken da aka yi ta yanar gizo ya nuna cewa anyi kulle a DRC, Madagascar, Malawi, Namibiya, da Rwanda. Sai dai a kasashen Burundi da Zambia ba haka lamarin yake ba. Yayin da aka rufe makarantu a dukkan nin wadannan kasashe, sakamakon rahoton ya nuna cewa babu wani rufe makarantu a kasar Zambiya. A Madagaska, yara ba su sami damar ci gaba da karatunsu ba yayin da ake rufe makarantu amma a wasu kasashe, rahoton ya nuna cewa yara sun samu damar ci gaba da karatu yayin da ake rufe makarantun. A DRC, wadanda aka yi hira da su sun ce sun san cewa kashi 90% na daliban an yanke musu karatu gaba daya daga koyarwa da koyo, inda kashi 10% ne kawai ke iya ci gaba da koyo daga nesa.

Daya daga cikin mafi girman tasirin, a cewar wadanda aka yi hira da su, shine da yawan daliban da aka yankewa karatu sun rasa sha'awar ci gaba da karatunsu bayan sun dade a gida, inda da yawa ba su dawo ba bayan an sake bude makarantu. Har ila yau, tasirin rufe makarantu ga ilimin yara mata ya kasance mai ban tsoro. Ya bayyana cewa lokacin da aka sake bude

makarantu, dalibai da yawa, musamman mata, ba su dawo makaranta ba. An ba da rahoton cewa an samu karuwar auren wuri, kuma da yawa daga cikin 'yan matan da aka aurar sun dauki juna biyu ne a lokacin da ba su zuwa makaranta a lokacin da aka kulle su a DRC. A Malawi, rahoton ya nuna cewa kafin barkewar annobar, akwai kusan mata 5000 masu juna biyu a kowace shekara. Koyaya, a cikin watanni takwas tsakanin tashin farko da na biyu na COVID-19 a cikin 2020. Hakanan, an ba da rahoton ciki na matasa 45,000. Wadanda suka yi hira da su sun ce an sami rahoton auren yara 25,000 tsakanin tashin farko da na biyu na COVID-19 a cikin 2020.

Yadda Edtech Ya Yi Amfani A Lokacin Annobar Korona

Kasashen Afirka da hamadar Sahara sun yi amfani da Edtech ta hanyoyi daban-daban dai dai da shirye-shiryen kasarsu, damar makin samun ilimi, da kalubale.

Abubuwan Da Aka Gano Sakamakon Bincike

- **Hanyar Modal Multi-Modal:** Kasashe sun yi amfani da EdTech da yawa kamar su ta hanyar Telebijin, da fasahar rediyo, aikawa da sakonni ta wayoyin salula, WhatsApp, Google zoom, da aikawa dalibai abubuwan koyo har-gida ta Takarda don ci gaba da koyar da dalibai a lokacin annobar. Kasashe kamar Mozambique, Senegal, da Kenya sun yi amfani da wannan hanyar inda ake amfani da haɗin gwiwa biyu ko uku don sa daliban su shagaltu da ilimi lokacin annobar. Kasashe irinsu Mozambique Senegal da Kenya sunyi amfani da wannan hanyar ta haɗa shirye-shiryen talabijin tare da yaren kurame, da shirye shiryen rediyo a cikin harshen Fotigal da yaren kasar sannan kuma an rarraba kayayyakin karatu da takardu don yara suyi karatu da kansu. Gwamnatin Senegal da Kenya ta haɗa shirye shiryen talabijin, rediyo, kan darussan da aka riga aka yi nada. Haɗin gwiwar kafofin watsa labarai na Namibiya don koyan nesa sun haɗa da rediyo, talabijin, takarda, sakonin wayoyin salula na SMS da kafofin watsa labarai, dandamalin koyo da wasu ke bayarwa, da dandamalin da gwamnati ta kirƙira
- **Haɗin gwiwar jama'a da masu zaman kansu:** Ko da yake kamfanoni masu zaman kansu sun taka muhimmiyar rawa a lokacin kullen, ta hanyar tallafawa kokarin gwamnati ta hanyoyi daban-daban da tallafin kudade, ba su jagoranci kokarin EdTech ba. Yunkurin ci gaba da koyarwa a lokacin annoba ya kasance gwamnati ce ta jagoranci hakan. Matsayin kamfanoni masu zaman kansu bashi da wani tasiri mai karfi .
- **Hanyar koyo ta amfani da takarda:** Duk da rufe makarantaun, kasashe da dama sun amince da karatun ta hanyar takarda inda aka raba kayayyakin koyon ilimi ga daliban. An yi amfani da wannan hanya mai amfani a Botswana, Burundi, DRC, da Madagascar. Malawi, Namibia, da Zambia.



Bayanan Da Aka Samo Da Maslaha Daga Kiis Akan Edtech

Burundi: An aiwatar da shirye-shiryen game da maslaha EdTech a Burundi amma ba a ci gaba ba ko aiwatar da sa har zuwa lokacin da muke tattara wan nan baya nan .

Jamhuriyar Demokradiyar Kongo: Yunkurin da makarantu a DRC suka kaddamar na amfani da fasaha don tallafawa koyo yayin rufe makarantu ba mai yawa bane. Gwamnati ta sanya wani manhaja a yanar gizo wanda ke tallafawa ci gaba da koyo ta hanyar tallafi daga UNICEF. Da wannan tallafi, an bayar da darussa na ilimi a gidajen rediyo da talabijin. Akwai kuma mafita na koyon dijital Vodaeduc da SchoolAp inda dalibai ke samun darussa kyauta ta hanya amfani da wayar hannu. Vodacom DRC ne ya fara aiwatar da starin tun farko. An aiwatar da starin ne ga iyalai waɗanda ke da yara kuma suna barin yara su yi amfani da yanar gizo don ganin irin darussan da ake samu. Dandalin ya ba iyalai damar amfani da hanyar sadarwar ta Vodacom da aiwatar da bincike kan fannonin ilimi. Na biyu shine amfani da yanar gizo wajen sada dalibai da ayyukan makaranta waɗanda za a iya amfani da su don sa yara su shagaltu da motsa jiki da kayan aiki. Duk da cewa 'yan wasa masu zaman kansu ne suka gabatar da tsare-tsare, gwamnati ce ke da alhakin aiwatarwa, domin an samar da tsare-tsaren ne tare da goyon bayan kwararru daga ma'aikatar ilimi.

Madagascar: An yi amfani da gidan talabijin na kasa don wasu azuzuwan makarantun firamare da kuma mutanen da ke shirin zana jarrabawar aji 7. TV shine babban dandalin koyo na duka azuzuwan kai tsaye da azuzuwan da kuma sake watsa azuzuwan. A cewar rahoton, watsa shirye-shiryen talabijin wani shiri ne na wani kamfani na kasa da kasa (MNE).

Malawi: Amfani da EdTech a Malawi lokacin kullen korona ya yi kadan. Gwamnati ta bullo da wani dandalin koyo ta yanar gizon gwamnati. Hakan na buƙatar tarin bayanai don samun dama kuma wannan ba kyauta ba ne. Saboda haka, yaran da suka fito daga gidaje matalauta ba za su iya amfani da hanyoyin koyo ba. Ya kamata a kuma lura cewa ana gabatar da darussa ta gidajen rediyan kasar.

Namibiya: Gwamnati ta yi tanadi don kwararrun malamai don koyarwa ta yanar gizo lokacin annobar. An gabatar da darussa na rediyo da abubuwan ilmantarwa ta hanyar watsa shirye-shiryen talabijin na gwamnati. Rahoton ya ce, dalibin sun kuma bullo da hanyoyin koyo masu zaman kansu a manhajojin kamar su WhatsApp domin musayar ilimi. Malamai sun kirkiri kungiyoyi tare da dalibai da iyaye don raba ayyukan ilimi. Inda babu wayoyin hannu , an yi amfani da dabarar iyaye don isa ga masu koyo. An bayyana yin amfani da EdTech a Namibiya don koyo a mastayin sabuwar hanyar rayuwa da bincike.

Ruwanda: An yi amfan da Rediyo da Talabijin don isar da muhimman manhajojin da darussa da gwamnati ta amince da su ga dalibai. Hukumar Ilimi ta Ruwanda ta kaddamar da wani dandali na yanar gizo don baiwa dalibai damar bayyana ra'ayoyinsu da samun damar ab koyon karatu. Wasu makarantu sun sami damar kirkirar aikin gida da ayyukan da aka aika ta WhatsApp da sauran dandamali na kafofin watsa labarai. An kirkiri kungiyoyin WhatsApp da dama yawa don amfanin dalibai da malamai.

Zambiya: Gwamnati ta dauki rediyo da talabijin a matsayin babbar hanyar ci gaba da koyarwa. Tare da tallafi da Haɗin gwiwar kungiyar Duniya na samar da Ilimi, an gina dakunan karatu a larduna 10 na Zambia. Wannan ya ba malamai damar shiga cikin dakunan karatu kuma su fara koyarwa kai staye. Ana watsa darussa a gidan talabijin na kasa. Hukumar Watsa Labarai ta Kasa ta samar da tasha ta koyarwa kuma daga baya aka samu darussa a DSTV. An kuma yi amfani da wasu masu hassasa lamura, da gidajen TV masu zaman kansu. Gwamnatin ta kuma hada gwiwa da gidajen rediyo masu zaman kansu domin yada labarai a wasu larduna. A cewar rahoton, Rwanda ta kuma hada gwiwa da kamfanonin sadarwa da na yanar gizo don koyar da darussa ta yanar gizo kyauta ga daliban

An lura cewa ci gaba da kokarin koyarwan gwamnati ce ta jagorance shi. Makarantu masu zaman kansu sun yi amfani da WhatsApp a madadin hanyar koyo ga daliban su.

Ingancin Edtech A Lokacin Annobar Korona

Rahoton ya nuna cewa yunkurin EdTech na kowane nau'i ba su da tasiri sosai ga Dalibai a DRC. A zahiri, 80% na mahalarta binciken sun bayyana cewa ba su da masaniya game da ayyukan EdTech da sakon takarda da gwamnati ta yi kokarin aiwatarwa. A Madagascar, rahoton ya nuna cewa EdTech ba shi da tasiri. Hakan na faruwa ne dalilin rashin wayar da kan alumma muhimmancinsa. An kuma yi iƙirarin cewa wani adadi mai yawa na jama'a ba sa samun damar yin amfani da fasahar zamani kamar TV, rediyo, kwamfutar tafi-da-gidanka, kwamfutoci, ko wayoyin hannu. Malawi ta tattara bayananki cikakken tasirin y rarraba kayan karatu a wasu sassan kasar don ci gaba da koyo amma sauran hanyoyin amfani da s EdTech sun fuskanci kalubale mai tsanani dangane da samun dama. A Namibiya, rahoton ya nuna cewa yawancin makarantu ba su da alaƙa da intanet. An bayyana kashi 60% na makarantun suna da akalla kwamfutoci 20. Makarantu a yankunan nesa ba su da damar intanet. Wannan ya sa EdTech ya yi rashin nasara a irin wannan yanki. An kiyasta cewa kasa da kashi 30% na kokarin taimakawa ci gaba da koyo ya yi tasiri. A wani bangaren kuma, rahoton ya bayyana gidan rediyo a matsayin wanda ya fi kowa jin dadin isar da sako a kasar Zambia. Gabaɗaya, tasirin EdTech a cikin kasashen ya yi kasa sosai.

Shigowar Manyan Kamfanonin Fasaha

Ana iya lura a rahoton cewa manyan Masu fasaha na iya taimakawa wajen yin tasiri ga masu tsara manufofi don yin aiki tukuru da amfani da duk kayan aikin fasaha. Hakanan za su iya tallafawa kasashe ta hanyar samar da kayan makaranta na dijital don daliban. Rahoton ya ba da shawarar ga manyan kamfano nin fasah Big Tech da kamfanonin fasaha na kasashen waje tun da sun san cewar amfani da dandamali na kafofin watsa labarun zai ba da damar ci gaba da ilimi ga wasu dalibai. Hakanan, ana buƙatar karfafa hanyoyin fasaha don samar da takamaiman sabis na bayanai don dalilai na ilimi.

Gano Mastalonin Siyasa Akan Fasaha

Harnessing EdTech a Afirka: Rahoton Binciken Bincike ya gano dalilai daban-daban da ya sa yawancin EdTech ba su cin nasara a hamadan Afirka ba lokacin annobar na korona. Daya daga cikin wadannan shine rashin shiri. Duk da cewa wadannan kasashe suna da bayanani tarihi na amfani da EdTech wajen koyo kafin cutar ta Covid19, babu wani shiri don cikakken shigarta cikin manhajar ilimin kasashen, musamman don tallafawa koyo na nesa.

Haka zalika, akwai rashin kyawun haɗin intanet. Baya ga Ruwanda da ke da mafi girman amfani da intanet da na'urar dijital (musamman wayoyin hannu) damar shiga, a kashi 90% da 75% na yawan jama'a bi da bi (Duarte & IMF, 2021), yawancin wadannan kasashe suna da karancin haɗin yanar gizo tsakanin jama'a. . A mafi yawan lokuta, ana katse al'ummar karkara daga intanet saboda rashin ingattun hanyar sadarwa . An ba da rahoton wani da aka tatttauna da shi na cewar a DRC kashi "90% na masu koyo an yanke su gaba daya daga koyarwa da koyo, tare da 10% kawai (mafi rinjaye a cikin tsarin ilimi na duniya masu zaman kansu) sun sami damar ci gaba da koyo daga nesa". Akwai manyan matsalolin intanet da haɗin kai daga dalibai. A Ruwanda, hanyar yanar gizo tana samuwa ne kawai ga waɗanda ke da damar amfani da intanet . Mahalarta taron sun yi kiyasin cewa kusan kashi 40 cikin 100 na mazauna birane ne ke samun damar shiga, amma ya ragu sosai a yankunan karkara fiye da na birane. Intanet ba koyaushe ba ne abin dogaro . Suma Siginonin rediyo da talabijin ba su da aminci sosai.

Wannan yanayin bai bambanta ba a Madagascar illa kawai kashi 19.4% na yawan jama'a ke da hanyar intanet (mutane miliyan 5.45) (Kemp, 2021).

An sami matsala game da darussan da ba a tsara su ba don shirye-shiryen rediyo. A DRC, yawancin dalibai ba sa bin darussan

rediyo. A cewar rahoton, ba a tsara su yadda ya kamata ba. Har ila yau, yin amfani da rediyo da talabijin don koyo ba koyaushe yake ba da amsa waanda ke koyarwa da masu koyo ba t ba. A mafi yawan lokuta, inda dalibai ke haɗa su da rediyo, shirye-shirye, suna iya saurare kawai, ba za su iya tuntuɓar mai gabatarwa don amsa tambayoyinsu ba. Lallai, kwarewar koyo ce ta hanya ɗaya ga daliban.

Hakazalika, rashin samun hanyoyin koyo ya kasance matsala a Malawi. Anan, yara daga wurare marasa galihu ba za su iya shiga tashoshin koyo ba saboda tarin bayanai masu tsada.

Akwai kuma batun rashin wutar lantarki, musamman a yankunan karkara. An gano matsalolin wutar lantarki a matsayin babban abin da ke hana shiga cikin shirin EdTech a duk kasashe takwas da aka yi bincike, kuma yayin da aka fi ganin wadannan a yankunan karkara, akwai kuma kalubale masu yawa a birane.

Abubuwan da ba su haɗa da koyo ba: A Malawi, rahoton ya nuna cewa ba a haɗa batutuwa da yawa a cikin koyar da karatun, a cewar rahoton. Shirye shiyan da ke cikin gidan rediyan kasa bai yi la'akari da yara masu nakasa ba, alal misali, yaran kurame ko makafi. A Madagascar, ma'aikatar ilimi ta kasa ta yi kokarin yin wasu darussa ta hanyar rediyo da talabijin; amma bai kasance mai sauƙi ba saboda fasahar da aka tura ba ta dace da yaran ba. A cewar rahoton, suna amfani da 'yan fim ne a matsayin dalibai a cikin ajujuwa.

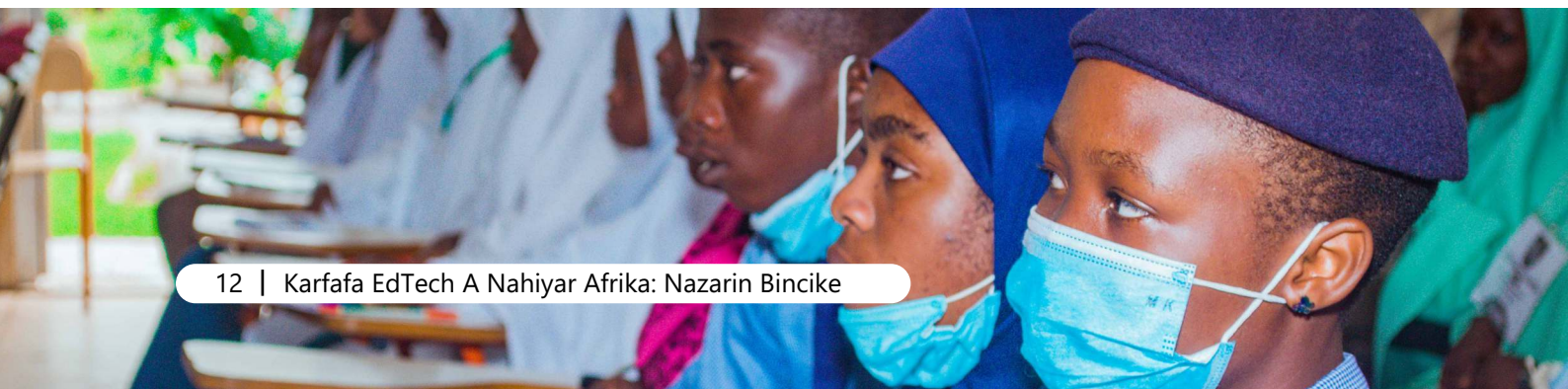
Karfin malamai akan EdTech. Bugu da kari, malamai a makarantun firamare da sakandare har ma da jami'o'i ba za su iya tabbatar da ci gaba da koyo ta hanyar amfani da fasahohin fasaha ba. Baya ga rashin fasahar dijital na malamin, gwamnati da sauran masu ruwa da staki kan harkokin ilimi ba su da isassun kayan aiki don haɓaka da daukan abubuwan da ga yanar gizo .

Rashin ingantaccen aiki tsakanin jama'a da kamfanoni masu zaman kansu EdTech. Ko da yake akwai shaidar haɗin gwiwa tsakanin gwamnati da kamfanoni masu zaman kansu, ba a sami haɗin gwiwa tsakanin masu ruwa da tsaki ba lokacin annobar na korona, da kirkira cikakkiyar hanyar magance buƙatar ɗaliban da ba zato ba tsammani. suka sami kansu a gida. Don haka, malamai, masu koyarwa, da wasu ƴan siyasa suna ganin cutar a matsayin wata dama ta rashin yin komai. Rashin cikakkiyar manufar EdTech shi ma babban kalubale ne ga kasashen ,

musamman na irin wannan lokaci. Misali, tsarin koyarwa na dukkan darussa a firamare, sakandare, da kuma a mafi yawan lokuta ba a tsara su don zama na zahiri ba. Don haka, yana da wuya yara su koyi kusan karon farko a rayuwarsu ba tare da sun ga malamansu a zahiri ba, ko kuma su shiga yanar gizo don samun kayan aiki maimakon rubutaccen rubutu na aji. A Najeriya, da sauran kasashen da ke kudu da hamadar Sahara, lokaci ne mai wahala ga yaran kafin su saba da sabon tsarin. musamman ga yaran da suka sami damar yin amfani da EdTech.

Akwati 1: Abubuwan Da Za A Yi La'akari Lokacin Yin Aiki Da Edtech

- Tsaron Yara.
- Samun damar Intanet.
- Matsayin talauci.
- Bambancin yanki.
- Samun dama aiki da fasaha:
- Matsayin karatun dijital na malamai: Ya kamata malamai su kasance kwararrun kan ilimin fasaha. Hakanan yakamata su sami horo mai zurfi akan fasahar sadarwa ta yadda za a basu damar raba ilimin su ga ɗalibai.
- Samun manufofin EdTech da matakin aiwatarwa.
- Saka hannun jari na jama'a da na kamfanoni masu zaman kansu a cikin EdTech da Samar da bayanai.
- Iyaye ilimin dijital
- Kayan aikin ababen more rayuwa:
- Tsaron Intanet na daliban:
- Masifu na yanayi, wasu cututtuka masu yaduwa, rikici, da matsanancin yanayi na iya haifar da rufe makarantu.
- Batun jinsi



Maganar Jinsi A Edtech A Hamadan Sahara Afrika

Mata da 'yan mata suna ci gaba da kasancewa da yuwuwar a ware su kuma suna cikin hadari yayin bala'in gaggawa na lafiya kamar COVID-19. Rahotannin baya-bayan nan masu alaka da rikicin gaggawa sun nuna cewa barkewar cutar na kara tabarbarewar lamuran 'yan mata da mata. Yana haifar da sababi kuma yana haɓaka rashin daidaito tsakanin jinsi da zamantakewa (UNFPA, 2020; Krug & World Vision, 2020). Ana iya lura a duk kasashen da aka yi bincike, cewa rufe makarantun yafi shafar yara mata. Rahoton ya ce an samu karuwar aurar da yara kanana da kuma yawan masu juna biyu. Iyaye kuma sun ki tura 'ya'yansu mata makaranta saboda kalubalen kudi. "Idan za mu ba da fifiko kan koyo ta yanar gizo a nan gaba, dole ne a sami isassun horo da wayar da kan 'yan mata kan yadda za su kewaye wannan sararin kuma a zauna lafiya". A Zambiya, Campaign for Female Education (CAMFED) ya yi amfani da WhatsApp, Google Meet, da Zoom don gudanar da duba lafiyar 'yan matan da ke cikin hanyar sadarwar su da kuma saukake isar da koyo, inda zai yiwu (FHI360, 2021).

Baya ga kokarin da CAMFED ke yi a kasar Zambiya, babu wani shirin EdTech musamman ga 'yara mata da mata a cikin rahoton tattara bayanai. A takaice, yawancin EdTech ba sa kula da jinsi ba. Manufofin EdTech mai ra'ayin jinsi shine mabudɓin don tabbatar da riƙe daliban 'ya'ya mata da kimar shiga makaranta yayin annobar lafiya ko wasu bala'o'i waɗanda ke da ikon haifar da rufe makarantu.

Nazarin Harkar Nigeria

Ko da yake Najeriya ba ta mayar da hankali a cikin rahoton ba, shaidu sun nuna cewa Najeriya ta hannun Ma'aikatar Ilimi ta Tarayya da hukumarta, Hukumar Kula da Ilimi ta Duniya ta kaddamar da Kwamitin Ba da Takuici don Koyi a Gida ga dalibanta miliyan 40, kashi 91% na wadanda suke makarantun firamare da sakandare da miliyan 10.5 na yaran kasar masu shekaru 5-14 (UNESCO, 2020) (FMoE, 2020). A matakin tarayya, Learn at Home Program ya kirkiro tashoshin e-learning guda biyu, schoolgate.ng da mobileclassroom.com.ng, waɗanda, tare da haɗin gwiwar kamfanonin sadarwa na intanet ta wayar hannu, suna ba da izinin shiga kyauta ga daliban firamare da sakandare. Gwamnati tare da haɗin gwiwar UNESCO sun kuma samar da wani dandali mai suna School Meet the Learner Approach kyauta a kan dandamali da yawa, ciki har da rediyo, talabijin da YouTube.



Shaidar Edtech A Najeriya

Npower Teach: Amfani da EdTech ba sabon abu bane a tsarin ilimin Najeriya, gwamnatin tarayyar Najeriya a shekarar 2017 ta raba dubunnan Npower Teach tablet wato Afrione 2in1, Window Speed, Zinox Zpad, Tecno pad, Samsung Tab E, RLG, da Floss Allunan sa hannu tare da cikakkun kayan koyarwa a cikin batutuwa. Wannan ya fi karkata ga malamai, dalibai da malaman da ba na Npower ba a makarantun firamare da sakandare ba sa cikin wadanda suka amfana.

Da kuma bada Umarnin koyarwa ta hanyar Rediyo Mai Haɗin gwiwa da (IRI):

Anan, an kafa kungiyoyin sauraron rediyo suna aiki da da'irar koyon ta wayar hannu. An fara shine a 1992 don inganta koyarwa a shekarar 1996, kuma Gidan Rediyon Tarayyar Najeriya na Kaduna ta ware wa Hukumar lokaci na tsawon mintuna 30. ta inda yake watsa shirin mai suna "Don Makiyaya a Ruga" (Ga Makiyaya a Gidajennsu) shirye-shiryen rediyo da . Kungiyoyin da dama ke saurare don lura da tasirin shirin. Bayan haka, An haɓaka koyarwa (IRI) a cikin shekara 2000, tare da shirya shirye-shiryen rediyo guda 13. Da ake watsa su zuwa kungiyoyin sauraron rediyo, ana kuma daukarsu azaman hanyoyin kooi, a kowace jihohi 36 na Tarayya nigeriya ciki har da babban birnin Tarayyaabuja Babban Birnin (FCT). A cewar UNESCO A(2016), nasarar na bangaren manya na shirin IRI ya kai ga kaddamar da wani shiri na makaranta, a Afirka ta Kudu ta hanyar Budewa Learning Systems Education Trust (OLSET) samfurin 13.

Edo-Best @ Gida: Edo Basic Education Sector Canjin (EdoBEST) shirin inganta sakamakon koyo ga yara sama da 250,000 a ko'ina Makarantun firamare na gwamnati 800 a jihar Edo a Najeriya kafin lokacin annobar cutar covid19. A lokacin barkewar cutar, jihar Edo ta kaddamar Edo-BEST@Home, haɗin gwiwar jama'a masu zaman kansu da jihar Edo.

Aikin AGILE: AGILE Ya Tsaya don Kaddamar da Kaddamarwar 'Yan Mata na Matasa don Koyo da Karfafawa. Ayyuka ne na Bankin Duniya na dalar Amurka miliyan 500 da ke da nufin inganta guraben karatun sakandare a tsakanin 'yan mata a yankunan da aka yi niyya a jihohin da suka shiga (Katsina, Kano, Kebbi, Zamfara, Jigawa, Sokoto da Borno). An amince da shi a cikin 2020 lokacin COVID19 tare da lokacin aiwatar da shekaru 5 (2021-2025). Aikin yana da abubuwa uku.

1. Bangaren farko, Samar da Safe da Wuraren Ilmi,
2. Samar da yanayi mai dacewa ga 'yan mata
3. Gudanar da aikin da karfafa tsarin

Karkashin kashi na biyu, ana sa ran an ba wa 'yan mata damar sanin dabarun rayuwa mai mahimmanci don kewayar balaga da fasahar karatun dijital. Ayyukan sun haɗa da horar da karatun dijital da dandalin koyo daga nesa. Koyarwar karatun na dijital zai ba wa dalibai basirar karatun dijital da ilimin da ya haɗa da:

- a) yin amfani da na'urorin hannu na dijital;
- b) bincike, ganowa, tantancewa da kuma tantance bayanana da aka samu akan yanar gizo;
- c) kewayar cikin nasara marar mizani na sararin samaniya na dijital;
- d) koyo, karantawa da cire bayanai daga abubuwan gani da sauti;
- e) kirƙirar sabbin abubuwan ilmantarwa ta amfani da fasahar dijital;
- f) samun damar bincike a yanar gizo ; da kuma
- g) sadarwa da haɗin kai.

Hakanan za'a ba da horo a cikin aminci ta yanar gizo don hana samari daga dabi'un mafarauta da cin zarafi. Za a ba da horo akan allunan lantarki tare da aikace-aikacen da suka dace da haɗin Intanet. Ana sa ran dalibai za su sami akalla sa'o'i biyu zuwa uku na horon ilimin dijital na yau da kullun a kowane mako. Aikin zai ba da kuɗin kuɗi da kayan aikin horo, aikace-aikacen da suka dace da haɗin intanet. A yau, kasafin kudin aikin AGILE ya karu daga N14bn a shekarar 2022 zuwa N53bn a kididdigar kasafin kudin 2023 na gwamnatin tarayyar Najeriya.

A matakin Jiha, an inganta koyo ta hanyar talabijin da rediyo na cikin gida, bisa tsarin karatun sakandare, da kuma karfafa shawarwari daga kungiyoyi masu zaman kansu da masu zaman kansu. Wasu kungiyoyi masu zaman kansu da masu zaman kansu kamar ULesson da Teach for Nigeria sun fito ta hanyar ba da horon haɓakawa ga malamai tare da fara wani shiri na haɓaka abubuwan more rayuwa don sauka ilmantarwa, ULesson musamman ya kirƙira wani dandamali na koyo mai rahusa akan na'urorin hannu waɗanda ke mai da hankali kan kananan darussan kimiyya.

Shawarar Siyasa

- Horar da malamai kan yadda za su iya amfani da kayan aikin EdTech a cikin ayyukan aji. Wannan ya zama ci gaba da tsari kuma yakamata a haɗa shi cikin matakin horar da kwararrun malamai .
- EdTech ya kamata a yi la'akari da ingantaccen tsari don tallafawa ilmantarwa, ko akwai annoba ko a'a. Wannan zai haifar da sanin yakamata ga gwamnati, malamai da dalibai. Ya kamata makarantu su tura EdTech lokaci-lokaci a cikin ayyukan aji na yau da kullun.
- Yayin da samar da wutar lantarki na da matukar muhimmanci, ya kamata gwamnati ta karfafa amfani da makamashin hasken rana a makarantu a matsayin wata hanyar samar da wutar lantarki, musamman a yankunan karkara da ke da wuyar isa ga wutar lantarki. Ya kamata a tallafa makarantu da na'urorin EdTech kamar allunan. Hakanan kwamfutar hannu mai dalibi-daya yana yiwuwa kuma yana iya yin nisa don magance gihin EdTech a cikin makarantu.
- Ya kamata a yi yakin wayar da kan jama'a, tarurrukan bita, da zaman bayanai don taimakawa aiwatar da shirye-shiryen EdTech.
- Kimanta bukatu yana da matukar muhimmanci don fahimtar wane bangare na kasashen da suka riga sun sami cigaba ke a aiwatar da EdTech kuma wanda har yanzu yana fafutuka. Wannan ya zama dole don takamaimai na siyasa mai dacewa kuma mai amfanarwa.
- Cire haraji daga na'urori kamar kwamfutar tafi-da-gidanka, kwamfutocin tebur, da wayoyin hannu don EdTech don yin nasara saboda la'akari da araha an gane shi azaman zaɓi mai dacewa don haɓaka EdTech a yankin Saharar Afirka.
- Ya kamata gwamnati ta hada kai da kamfanonin sadarwa don samar da tarin bayanai kyauta ga xalibai don samun damar koyo ta yanar gizo.
- Gabatar da darussan ICT a cikin manhaja don tallafawa koyon nesa.
- Karfafa kokarce-kokarce na sake fasalin manufofi da tsare-tsaren tsare-tsare don samar da hanyoyin sadarwa ta hanyar sadarwa mai araha, mai sauƙi da bukatu na duniya don haɓaka kwarewar fasaha, don cin gajiyar ci gaban fasaha cikakke (Alper & Miktus, 2019).

A Karshe

Wannan binciken ya taimaka wajen nuna cewa an takaita tasirin fasaha a makarantu, koyo da koyarwa a Botswana, Burundi, DRC, Madagascar, Malawi, Namibia, Rwanda da Zambia da kuma nazarin shari'ar Najeriya. A lokacin bala'in cutar, rashin koyo na nesa da kuma rashin samun dama ta duniya don shiga ayyukan koyo da aka sauƙaƙe ta hanyoyin dijital, lokacin da kuma inda ake bukata, kuma ba tare da la'akari da yanayin mutum ba, ya zama al'amari na duniya. Hakanan, yanayin ya kasance mai saurin tilastawa gwamnatoƙi, musamman a cikin kasashen Afirka da ke kudu da hamadar Sahara da su kaddamar da EdTech cikin gaggawa don dalibai dake gaba da firamare zuwa manyan makarantu su ci gaba da karatunsu. Duk da kokarin da waɗannan kasashe ke yi na samar da ingantaccen ilimi ga daliban su ta hanyar starin Multi-Modal , haɗin gwiwar jama'a masu zaman kansu da kalubalen hanyoyin ilmantarwa na tushen takarda har yanzu sun kasance da mastala. Shaidu daga wannan binciken sun nuna cewa in ana buƙatar EdTech ya yi tasiri kuma ya yi cikakken aiki a waɗannan kasashe, akwai buƙatar gwamnatoƙi su nemi haɗin gwiwa masu ruwa da tsaki don samun karfafa EdTech da samun Ci Gaba mai Dorewa.



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