

Tagduda Tazzayrit Tamagdayt Tayerfant
Aylif n Uselmed Unnig d Unadi Ussnan
Tasdawit Abderrahmane Mira n Bgayet



Tamezdeyt n Tsekliwin d Tutlayin
Tasga n Tutlayt d Yidles n Tmaziyt

Tazrawt n Master

Tayult: Tutlayt d Yidles n Tmaziyt

Tafurekt: Tasnilest d Tesnalmudt

Tuzzigt: Tasnalmudt n Tutlayt Tamaziyt

Asentel

**Azal n tkerða n tanallayt deg ulmad n
umawal. Ayerbaz amenzu, aswir wis
semmus.**

Syur yinelmaden/ tnelmadin:

1 Mamache Tinhinane

2 Kakouche Thiziri

Inesyuma:

..... **Aselway**

..... **Anemhal**

..... **Amekyad**

Aseggas asdawan

2021.-2022

Tagduda Tazzayrit Tamagdayt Tayerfant
Aylif n Uselmed Unnig d Unadi Ussnan
Tasdawit Abderrahmane Mira n Bgayet



Tamezdeyt n Tsekliwin d Tutlayin
Tasga n Tutlayt d Yidles n Tmaziyt

Tazrawt n Master

Tayult: Tutlayt d Yidles n Tmaziyt

Tafurekt: Tasnilest d Tesnalmudt

Tuzzigt: Tasnalmudt n Tutlayt Tamaziyt

Asentel

**Azal n tkerða n tanallayt deg ulmad
n umawal. Ayerbaz amenzu, aswir wis
semmus.**

Syur yinelmaden/ tnelmadin:

1 Mamache Tinhinane

2 Kakouche Thiziri

Inesyuma:

..... Aselway

..... Anemhal

..... Amekyad

Aseggas asdawan

2021.-2022

Asnemmer

Deg tazwara ad d-nini tanemmirt i yimawlan-ntey i yellan yer tamantey seg tazwara almi d tura.

*Ad nesnemmer Massa **Hamdi Naima** i yellan yer yidis-ntey s yiwelihen-is d tmusniwin-is i ay-d-tettak seg mi yebda leqdic-a almi d asmi i tnessuli.*

*Tanemmirt tameqqrant d waṭas n leqder i yiselmaden-nney n tesnalmudt :Mass **Meksem Zahir**, Massa **Amari Samira**, Mass **Fédila Makhoulf** i ay-d-yefkan lsas yef wacu i nbedd deg umecwar-nney, d nutni i ay-yessawḍen yer wayen i nella tura.*

Tanemmirt i kra n win i ay-d-yefkan afus n tallelt deg umecwar n uheggi n umahil-a-nney, ama s wawal, ama s usebyes d tektiwin.

Abuddu

Ad buddey leqdic-a

I yimawlan-iw ezizen fell-i "baba d yemma" ssaramey-asen teyzi n lemer.

I watmaten-iw ylayen "Toufik, Yanis"

I yistma ezizen fell-i "Lamia, Wassila, Célia akked warrac-is i hemmley atas.

I urgaziw agerruj n tudert-iw "Djillali Yakoubi" i d-yefkan afud d tallelt akked twacult-is.

I temddakkelt-iw "thiziri" . D taḥbibt i hemmley atas ssaramey-as tudert yettfeḡḡiḡen.

I temddukkal-iw n tneyrit akken ma llant.

Tinhinane

Abuddu

Ad buddey leqdic-a

I yimawlan-iw i hemmley seg wul "baba d yemma" ezizen fell-i atas ad asen-yesezif rebbi di lemer-nsen.

I weltma "Tinhinane" akked watematen-iw "Farid, Idris" i hemmley atas ssaramey-asen teyzi n lemer akked tudert yelhan.

I urgaz-iw "Nabil Hassaini" i d-yefkan afud d lemɛiwna.

Ad buddey leqdic-a i tin lwaḥi cerkey tazrawt-a, tamdakkelt-iw i hemmley atas "Tinhinane" ssaramey-as ad tawweḍ yer lebyi n wul-is, teyzi n lemer d tudert yeḡḡuḡgen.

I temddukal-iw n tneyrit yal yiwet s yisem-is.

Thiziri

Agbur

Asnemmer

Abuddu

Tazwert tamatut Erreur ! Signet non défini.

Ixef amezwaru: Tizri d tesnarrayt

Tazwert n yixef 13

Aħric amezwaru: Takerða tanallayt

1 Tabadut n tkerða tanallayt..... 15

1.1 Tadra-s:..... 17

2 Ayyer i d-nbennu takerða tanallayt?..... 17

3 Amek i d-yettili lebni n tkerða tanallayt?..... 20

3.1 Ilugan n lebni n tkerða n wallay 22

4 Asissen n yiferðisen igejdanen deg tkerða tanallayt 23

4.1 Tugna 23

4.2 Unuy..... 24

4.3 Init 25

4.4 Azamul..... 26

5 Tixutert n usemres n tkerða tanallayt deg uselmed 27

5.1 Tixutert n tkerða tanallayt deg usnerni n tzemmar timawalanin n yinelmaden 29

5.1.1 Takerða tanallayt d allal imegley..... 29

5.1.2 Takerða tanallayt d allal yetteawanen deg tigzi d cfawat 30

Taggrayt Erreur ! Signet non défini.

Aħric wis sin: Tasnarrayt

Tazwert..... 35

1 Asissen n unnar d uswir n yinelmaden 35

2 Tarrayt n ugmar n yinefkan 35

2.1 Tannayt	35
2.1.1 Asissen n tfelwit n tannayt.....	36
2.1.2 Iswi n yimataren	38
2.1.3 Asissen n temsirt i neḥder.....	38
3 Tarrayt n tesleḏt	40
3.1 Tarrayt n tesleḏt n tfelwit n tannayt	40
Taggrayt	41
Taggrayt n yixef amezwaru	42
Ixef wis sin: Tasleḏt n yinefkan	
Tazwert n yixef wis sin	44
Aḥric amezwaru: Tasleḏt n yinefkan n tannayt	
Tazwert.....	Erreur ! Signet non défini.
1 Tasleḏt n yinefkan n tfelwit n tannayt	Erreur ! Signet non défini.
1.1 Addad n yinelmaden deg tneyrit.....	47
1.2 Tasleḏt umatar wis sin "tikli n yinelmaden deg lawan n useqdec n tkerḏa n wallay....	48
1.3 Tasleḏt n umatar wis kraḏ "timegleyt n yinelmaden deg tneyrit"	50
1.4 Tasleḏt n umatar wis ukkuz "tigzi n temsirt syur yinelmaden".....	54
Tasemlilt	56
Taggrayt	58
Taggrayt tamatut.....	Erreur ! Signet non défini.
Iybula	63
Tijentaḏ	67

Tazwert tamatut

Deg unnar n uselmed, aselmad yekkat ad yesnerti ugar tizemmar n yinelmaden, s useqdec n waṭas n wallalen isensegmiyen ara ten-ieiwnen ad lemden tutlayt, rnu ad ttekkim deg ulmad-nsen. Allalen isensegmiyen mmalen-d ayen akk yessemras uselmad deg uselmed-is akken ad yesseddu timsirin-is , iwakken dayen ad yessishel asiweḍ n tmussni d yizen i yinelmaden.

Afran n wallalen-a yettili-d ilmend n wayen sran yinelmaden, aṭas n wallalen isensegmiyen iyef tsenniden yiselmaden deg uselmed-nsen akken ad sishilen tigzi i yinelmaden. Gar wid yettusemrasen i uselmed n tutlayt ad naf takerḍa tanallayt. Pengadilen Sembiring., yenna-d: « *Aṭas n tfukas i yellan i usnerti n tezmert tutlayant n yinelmaden. Gar tfukas-a n ulmad ad naf takerḍa tanallayt* »*¹.

S wakka takerḍa n tanallayt tettuneḥsab d allal i uselmed n tutlayt. Dya temmal-d azenziy n tektiwin i d-yeskanayen tamuḥli tamatut n yisali i nebya ad d-nessegzi. Ilmend n Jean Pierre Leac., takerḍa tanallayt « *D tawenya i d-yeskanayen tikiwin, awalen d timiḍranin i icudden deg way gar-asen, i d-yezzin i usentel i yellan d alemmas* »*².

Deg unnar n uselmed, allal-a yesṣa azal meqqren imi yettaḡḡa anelmad ad yili d imegley, ijebbed-d lwelha-s, yessekcam-it deg ulmad-is, yessishil fell-as tigzi d cfawat imi deg-s nessemras tugniwin, initen, izamulen, unuyen... Dya ad naf Jean Pierre Leac., yenna-d « *Akk tikerḍiwin tinallayin lant iferdisen itent-icerken, zzin-d i usentel alemmas, deg-s yettili usemres n yijerriden, izamulen, awalen, initen d tugniwin i d-yeskanayen timiḍranin d tiherfiyin yerna sehlemt i cfawat* »³. Ihi lebni n tkerḍa tanallayt ibedd yef yiferdisen-a : tugna, init, azamul, unuy... Ineggura-ya jebbeden-d lwelha n unelmad, tteawanen-it deg tegzi, ssishilen fell-as cfawat.

*« Beaucoup de technique pour améliorer la compétence langagière des étudiants. L'un de techniques d'apprentissage est la carte heuristique.»

¹Pengadilen Sembiring, 2018, « Enrichissement de vocabulaire en utilisant la carte heuristique», *Bahas*, vol 29, N°3, Asb.264.

*«Une carte heuristique, est un graphique représentant des idées, des mots, des concepts des qui sont liés entre eux autour d'un sujet central»

²Jean-Pierre Leac, «La carte heuristique ou mind-map-les cahiers de l'innovation», yemzer ass n 18/12/2021, deg uzeṭṭa tansa-s :

<https://www.google.com/url?esrc=s&q=&rct=j&sa=U&url=https://www.lescahiersdelinnovation.com/la-carte-heuristique-ou-mind-map/&ved=2ahUKEwjz-s6P-Pb0AhVTAWMBHUEpAgUQFXoECAQQBA&usg=AOvVaw0Do1yhT0TdJujg5fxblgQQ>

«Toutes les mind maps disposent d'éléments communs s'articulés autour d'un noyau central elles mettent en œuvre des lignes, des symboles, des mots, des couleurs et des images illustrant des concepts simples et faciles à mémoriser.»

³ Kifkif ayb.

Agnu

Takerða tanallayt d allal i nezmer ad nessemres i uselmed deg tuget n temsirin am: umawal, taseftit, tajerrumt... Deg leqdic-a nefren armud n umawal imi yettunehsab d aferdis agejdan deg ulmad n tutlayt, rnu yer waya, yesea tixutert imi yessishil almad n wawalen d usegzi-nsen ladya awalen imaynuten. Tamussni n umawal tetteawan anelmad ad yessenfali, ad yefhem, ad yissin ad yesmmeslay akken iwata d wiyed ,tin yur-s, tetteawan-it deg usenfali s tira , ad yezmer ad yaru adris yelhan. Seg leqdic-a nebya ad d-nesken amek i tezmer ad tteiwentkerða tanallayt deg ulmad n umawal.

Leqdicat imezwura i d-yewwin yef tkerða tanallayt llan-d s ufus n umusnaw Tony Buzan. Ad d-nebder kra seg leqdicat-is:

- Buzan Tony., 1994, *Mind mapping*, edition Buzan Centres.
- Buzan Tony., 1995, *Use both sides of your brain: new mind-mapping techniques to help you raise all levels of your intelligence and creativity*, edition New York, NK: Plume.

Deg umahil-a, ad nsenned yef leqdicat n Tony Buzan imi skanayen-d azal i tesa tkerða tanallayt deg usishel n lebni n tektiwin akked usnerni n tmussniwin imi allal-a yettakk-d tikti takemmalit yef usentel i d-yewwi i d-yettilin s talya n uzenziy.

Anadi-nney yerza asemres n tkerða tanallayt deg temsirt n umawal, deg-s ad d-nesken azal i yesea wallal-a deg usnerni n tzemmar timawalanin n yinelmaden.

Ihi asteqsi agejdan iyef ibedd umahil-a d wa:

➤ **Ma tkerða tanallayt tetteawan inelmaden deg usnerni n tzemmar-nsen timawalanin?**

Iwakken ad d-nerr yef usteqsi-ya nessumer-d turda-a:

- ❖ Takerða tanallayt txeddem-d timegleyt deg tneyrit imi deg-s ttilin izamulen, initen, tugniwin, unuyen ... dayen i d-ijebden inelmaden ugar yer temsirt.

I wakken ad nwali tidet n turda-a, nga tannayt deg tneyrit akken ad nzer ma takerða tanallayt tgellu-d s tmegleyt deg tneyrit ney ala.

Akken dayen ad nwali ma s tidet takerða-a d tallelt i usnerni n tzemmar timawalanin n yinelmaden.

Asissen n umahil

Amahil-a yebda yef sin n yixfawen d wid ara d-nessisen deg wayen i d-itteddun:

- Ixef amezwaru yerza tizri d tesnarrayt, yebda yef sin n yihricen:

Ahric amezwaru n tezri, deg-s ad d-nmeslay yef tkerda tanallayt, ad tt-id-nesbadu akked ad d-nesken azal i tesea deg unnar n uselmed.

Ahric wis sin yerza tasnarrayt, deg-s ad yili wawal yef tmental n ufran n unnar akked uswir ayurbiz. Akken dayen ad yili wawal yef tarrayt i nefder akken ad d-nerr yef turda n leqdica.

- Ixef wis sin n umahil-a, yerza tesledt, deg-s ad nexdem tasledt i yinefkan i d-negmer seg tannayt i nega deg tneyrit.

Taggara n leqdic-a ad tili d taggrayt, ideg ara d-nerr yef usteqsi agejdan akked ad nessidet turdiwin n tezrawt-a.

Ixef amezwaru: Tizri d tesnarrayt

Tazwert n yixef

Ixef amezwaru n tezrawt-a d ixef n tezri d tesnarrayt, imi ineggura-ya d lsas n yal leqdic ussnan. Deg-sen ad d-nessisen iferdisen igejdanen iwatan i leqdic-nney, ixef-a ad d-yawi yef sin n yiħricen-a.

Aħric amezwaru, ad d-yili yef usentel n tezrawt-a "Takerða tanallayt". Sumata ad d-nessisen ayen akk icudden yer tmiðrant-a.

Aħric wis sin, ad yili umeslay yef tesnarrayt. Deg-s ad d-nessisen tifukas ara neđfer deg ugmar n yinefkan, akked tesleđt-nsen, rnu ħur-s ad yili usissen n unnar akked uswir ayurbiz n yinelmaden.

Ahric amezwaru: Takerɗa tanallayt

Tazwert

Deg tneyrit aselmad yesseqdac aṭas n wallalen ara yefken afus n tallelt i yinelmaden-is. Gar wallalen-a tella tkerða tanallayt, ihi deg uħric-a ad d-nemmeslay yef wallal-a, ad t-id-nesbadu. Syin ad d-nesken tixutert-ines deg unnar n uselmed akked ad d-nefk kra n yimediyaten n tkerðiwin tinallayin i nezmer ad nesseqdec deg kra n tayulin n tudert ladya aselmed.

1 Tabadut n tkerða tanallayt

Takerða tanallayt d allal gar wallalen isensegmiyen i sseqdacen yiselmaden akken ad d-segzin kra n temsirt ney d alaymu i yinelmaden. Allal-a yeskanay-d tugna tamatut n yisali i nebya ad d-nesken ney ad d-nessegzi i unelmad.

S trumit, ad d-naf allal-a ila aṭas n yismawen-nniḍen am: *carte conceptuelle, carte de concept, carte heuristique, schéma heuristique, topogramme, carte mentale, carte d'organisation d'idée...*

Deg tneglizit, ad d-naf awalen: *mind map, clustering* etc...^{*1}

Ma deg tmaziyt nessumer-d awal "takerða tanallayt" i yellan d tasuqqilt n wawal n trumit "carte mentale ". *Carte*: takerða, *mentale*: anallayŸ, s waya yeffey-d yisem-is takerða tanallayt.

Iwakken ad d-nesbadu allal-a, nefren-d kra n tbadutin i d-nekkes seg kra n yisegzawalen d leqdicat n wid iqedcen fell-as.

Deg usegzawal n Petit Larousse, ad naf sbadun-itt-id akka: « *D allal i yezmer ad yessemres yiwen s timmad-is ney deg ugraw, telha i tuṭṭfa n tezmilin, asebded n uyawas, i ulmad, aħfaḍ, timawit, asmal ney asissen n tektiwin* »^{*2}.

*«La carte heuristique (mind map, carte d'organisation des idées ou carte mentale) «est un outil d'usage personnel, ou collectif, utile à la prise de notes, la recherche d'idées, l'élaboration d'un plan, l'apprentissage, la révision, la mémorisation, l'oral, la valorisation des idées ou d'une présentation».

¹ La petit larousse, yemzer ass 26/01/2022 deg uzetṭa tansa-s :

<http://www.aucourt-technologie.com/Doc/13.-carte-heuristique.pdf>

*«La carte heuristique (mind map, carte d'organisation des idées ou carte mentale) «est un outil d'usage personnel, ou collectif, utile à la prise de notes, la recherche d'idées, l'élaboration d'un plan, l'apprentissage, la révision, la mémorisation, l'oral, la valorisation des idées ou d'une présentation».

Seg tbadut-a ad negzu takerða tanallayt d ttawil i yezmer ad yesseqdec yiwen akken ad inadi yef wayen yesra ama d almad, lebni n tektiwin...

Tella dayen tbadut n Tony Buzan d Barry Buzan., i d-yeqqaren takerða tanallayt « *D allal i yellan d allayan, n twenya, nezmer ad t-nesseqdec deg tuget n twuriwin n tesnimant ladya taktut, tismulfit, almad d tuget n talyiwin n uxemmem* »*¹.

S wakka takerða tanallayt d allal i nezmer ad nessexdem deg waṭas n tgnatin yemgaraden am uxemmem, i cfawat, almad...

J-L-Deladière, Frédéric d wiyad, fkan-d tabadut-nniḍen «*takerða tanallayt tettgensis-d amyezrer n yinefkan yemsedfaren d wassay yellan gar-asen s yiwet n talya i yettemcabin yer talya n useklu ideg iswi d asuddes ney d askan n yisali*»*.²

Ihi da, teskanay-d tikiwin d wassay yellan gar-aset dya bnant amzun d talya n useklu ta ddaw ta.

Seg tbadutin-a i d-nebder, ad negzu takerða tanallayt d allal i d-yettgensisen tikiwin d yisallen d wassay yellan gar-aset s yiwen n wudem i yellan d amuyli. Yezmer ad tt-yessemres umdan i wayen yesra ama i ulmad, i cfawat, i tigzi d unadi yef tektiwin...

Ter taggara, tabadut i nettwali twulem leqdic-nney, d tabadut i d-negmer seg usegzawal n Petit Larousse imi tesken-d tibuyar n tkerða tanallayt deg unnar n uselmed d ulmad.

Mi nekfa tibadutin n tkerða tanallayt, ad nēddi ad d-nemmeslay yef tadra-ines d tixutert-ines deg unnar n uselmed akken dayen ad d-nefk kra n yimediyaten n tkerdiwin tinallayin.

²S.Lafaye., 2012, *présentation des carte heuristique*, yemḥer ass 28/01/2022,deg uzeṭṭa tansa-s https://eed.ac-versailles.fr/IMG/pdf/Les_cartes_heuristiques_Final.pdf

*«Une mind map est un outil mental holistique visuel et graphique qui peut s'appliquer à tout les fonction Cognitives, en particulier la mémoire, la créativité, l'apprentissage et toutes les formes de pensée»

¹ Buzan T akked, Buzan B., 2012, *Mind map dessine-moi l'intelligence*, éd d'organisation, asb 32.

*«La carte heuristique représente une hiérarchie temporaire et arbitraire de liens entre des données suivant une architecture et /ou de faire émerger de l'information»

²Jean-Luc Deladrière ., d wiyid, 2007, *organisez vos idées avec le mind mapping*, Dunod, 2ème éd,Asb 2.

1.1 Tadra-s

Deg tazwara, takerða tanallayt tella s talya

n uzenziy kan, ur tettwassen ara atas. Llan ssexdamen-tt yimussnawen am Aristote, Léonard Devinci d Albert Einstein, ttwalin-tt d allal i igerrzen i usmuḡli n yisali, semmrasen-tt iwakken ad xedmen talya i tussna-nsen, tin ḡur-s, akken ad d-awin timussniwin timaynutin war ma fkan-as isem "takerða tanallayt".

Armi d yiseggasen n 1970 i d-as-yefka umussnaw Aneglizi Tony Buzan isem "Mind Map", dya ad naf yesbadu-tt: *d allal n uxemm, d allal yifen i yetteawanen deg usexdem n wallay*^{*1}, s wawal-nniḡen takerða tanallayt d yiwen n ttawil i yessishilen axemm d useqdec n wallay n umdan.

Am wakken dayen i d-yexdem aseḡzan n tsenselkimt yerzan takerða tanallayt iwumi qqaren "iMindMap".

2 Ayyer i d-nbennu takerða tanallayt?

Takerða tanallayt d allal i yezmer ad yessemres umdan deg tagnatin yemxalafen deg tudert-is. Tony d Barry Buzan nnan-d: « *Takerða tanallayt nezmer ad tt-nessemres deg tuget n tmezriwin n tudert* »^{*2}. Ihi nezmer ad tt-nesseqdec deg uselmed neḡ deg tudert n yal ass sumata. Deg wayen i d-itteddun ad d-nefk kra n yimediyaten ideḡ yezmer umdan ad tt-yessemres :

*«Un outil pour penser, un outil idéal d'accompagnement aux processus mentaux»

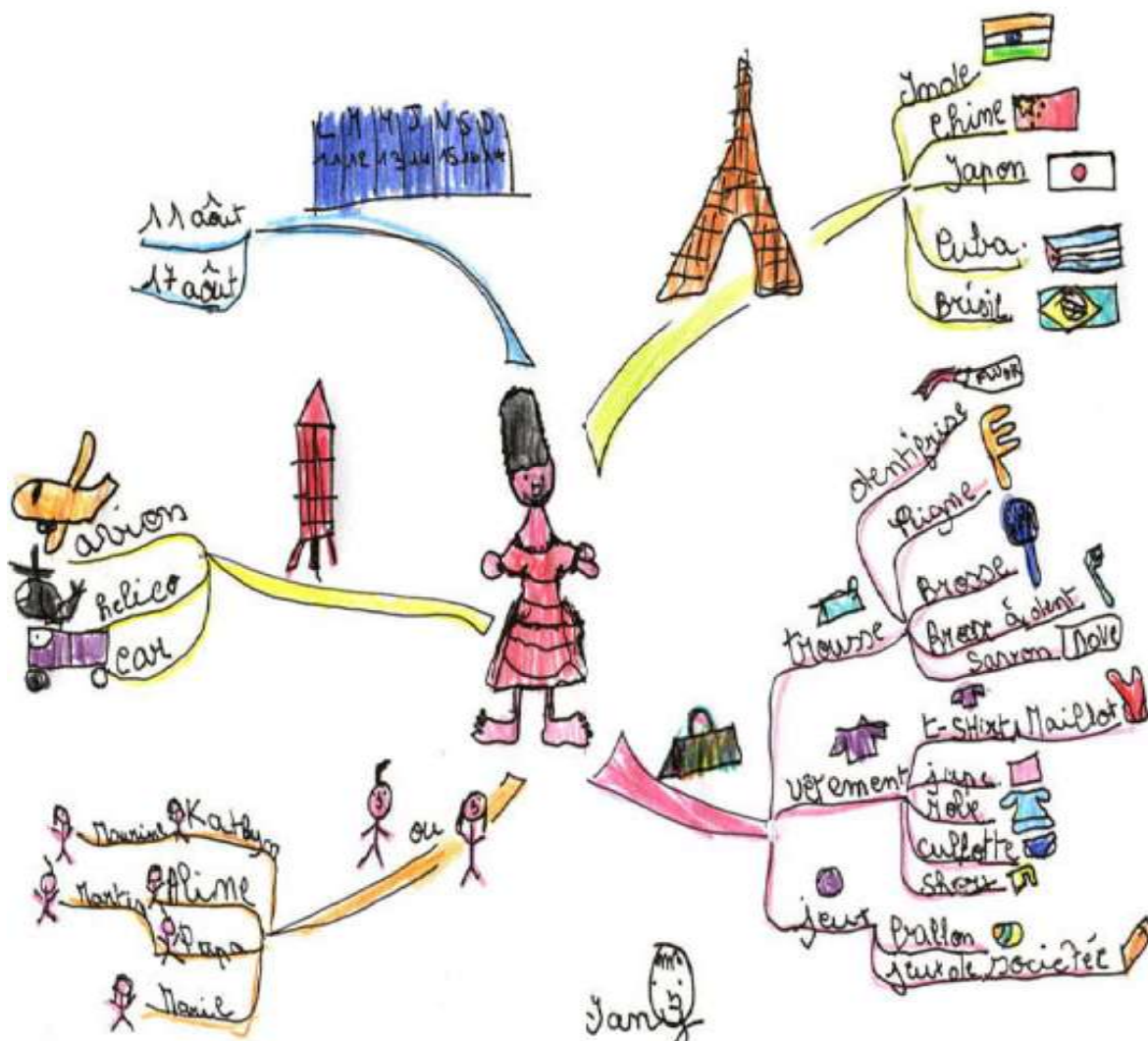
¹Lafaye.S, 2012, *Présentation des carte heuristiques*, yemzer ass 28/01/2022, deg uzeḡta tansa-s : https://eed.ac-versailles.fr/IMG/pdf/Les_cartes_heuristiques_Final.pdf

*«Le Mind mappinge peut s'appliquer à tous les aspects de la vie»

² Buzan T akked Buzan B., 2003, *Mind map dessine-moi l'intelligence*, édition d'organisation, asb 59.

- Inig

Takerða tanallayt yezmer ad tt-yessexdem umdan deg tudert-is n yal ass am: *yinig*. Dya imi ad yebyu yiwen ad yinig yer kra n umkan yezmer ad d-yexdem takerða ilmend n wayen ara yuħwağ...atg, hata yiwen n umedy a d-fkan J-L-Deladière & al. Deg udlis-nsen *Organisez vos idées avec le mind mapping*¹, yef yiwet n teqciçt deg leæmer-is 9 n yiseggasen, ideg thegga-d takerða tanallayt i yinig i tebya ad texdem:



Takerða uṭṭun 1: Aheggi n yiwen n yinig syur yiwet n teqciçt n tza n yiseggasen deg leæmer-is.

¹ Jean-Luc Deladrière.,2007, bdr-ya, asb.174

- Aselmed

Deg unnar n uselmed, yezmer ad tt-yessexdem unelmad i tuţţfa n tezmilin. Dya deg tneyrit imi ad d-yettmeslay uselmad, anelmad ad d-yetattaf tikiwin tigejdanin yef usentel iyef i d-yettmeslay uselmad. Am wakken dayen «*Anelmad yezmer ad yessemres takerða tanallayt akken ad d-ieiwed i usiley n tektiwin n temsirt*»^{*1}. Ihi takerða tanallayt tessishil yef unelmad lebni d usuddes n tektiwin-is yef temsirt i yeyra. Rnu yur-s, yezmer ad tt-yessexdem i cfawt d ulmad, imi ad yili yesæa akayad yur-s atas n temsirin akken ad tent-iyer, ad yesseqdec takerða tanallayt ideg ad yexdem izenziyen i wayen yegza seg temsirin-ni, aya at-ieiwen akken ad yelmed rnu ad yecfu ugar ma ihfed-itent.

Akken dayen i yezmer ad tt-yesseqdec uselmad deg waţas n yirmad am: lebni n tyessa n yisenfaren. Deg-s ad d-yexdem takerða tanallayt ilmend n usenfar i yebya ad yesyer, deg-s ad yaru azwel n usenfar-nni, syin ad d-frurint tegzimin-is, yal tagzemt ad yaru tirmad ara yexdem deg-s. Tony d Barry Buzan nnan-d: «*Takerða tanallayt tettak i uselmad tamuylit tamatut yef wahil n useggas ideg ad yili uskan n beţtu n yikradyuren d tewsatini ara yexdem*»^{*2}.

Takerða tanallayt yezmer ad tt-yessemres uselmad i yiman-is, ideg ad d-yexdem takerða ilmend n wahil-is ara yesyer deg krađ n yikradyuren n useggas. Aya yettağga aselmad ad yessudes iman-is deg uxeddim-is.

Rnu yer wannect-a, yezmer uselmad ad tt-yessemres i usegzi n temsirin imi tessishil tigzi d cfawat i yinelmaden.

amedya

Yezmer ad tt-yessexdem akken ad d-yesken tikiwin yuæren, i ugenses n yiger n umawal ideg ad yexdem awal agejdan deg tlemmast, syin ad icudd yur-s aktawalen-is s wudem ara yessishilen tigzi i yinelmaden. Ilmend n Tony d Barry Buzan : «*Aselmad*

*«l'étudiant peut utiliser la carte conceptuelle pur remettre en forme les notes relatives à un cours»

¹Yemzer ass 29/01/2022 deg uzeţta tansa-s:

[https://inspe.u-bourgogne.fr/wp-content/uploads/2016/03/M%C3%A9mo-La carte conceptuelle un outil stimulant pour l'enseignement l'apprentissage et l'evaluation.pdf](https://inspe.u-bourgogne.fr/wp-content/uploads/2016/03/M%C3%A9mo-La%20carte%20conceptuelle%20un%20outil%20stimulant%20pour%20l'enseignement%20l'apprentissage%20et%20l'evaluation.pdf)

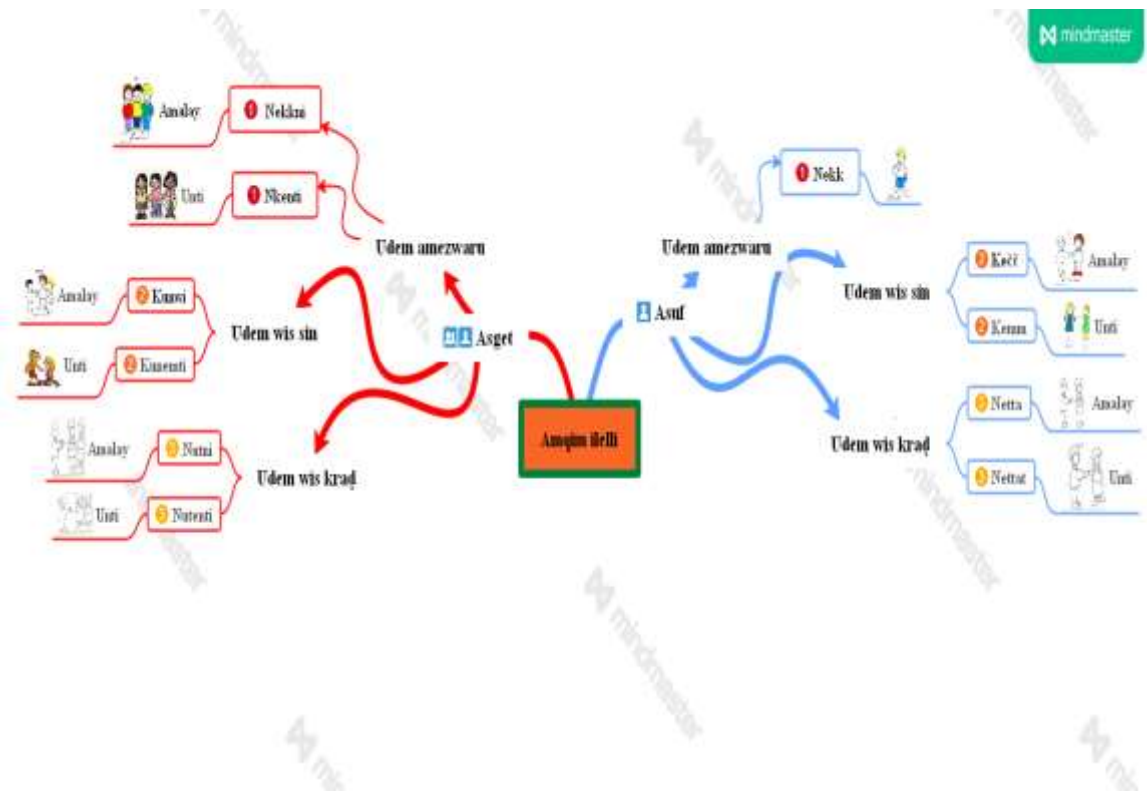
* «Le mind map peut ensuite fournir au professeur une vue d'ensemble du programme de l'année mettant en évidence les divisions trimestrielles et le type de cours à donner».

² Buzan T akked buzan B.,2003, bdr-ya,asb.224.

*«Le professeur peut dessiner la progression de son cours sur un mind map, cette extériorisation du processus de réflexion rendra plus claire la structure du cours, ce qui permettra de retenir l'attention des élèves et de favoriser la mémorisation et la compréhension du sujet traité».

yezmer ad d-yessuney asuref n temsirt-ines yef tkerða tanallayt, askan-a n ukala n tiđmi yettağğa tayessa n temsirt tettbin, anect-a ijjebbed-d lwelha n yinelmaden akken dayen tesnirif cfawat d tigzi n usentel iyran »¹. Ad negzu aselmad yezmer ad d-yebnu tamsirt-is s tkerða tanallayt akken ad d-rren inelmaden lwelh-nsen yer temsirt tin yur-s tettəawan-iten deg tegzi d cfawat n wayen yran.

Deg wayen i d-yetteddun ad d-nefk amedya yef wamek i yezmer uselmad ad yesseqdec takerða tanallayt deg temsirt n tseftit.



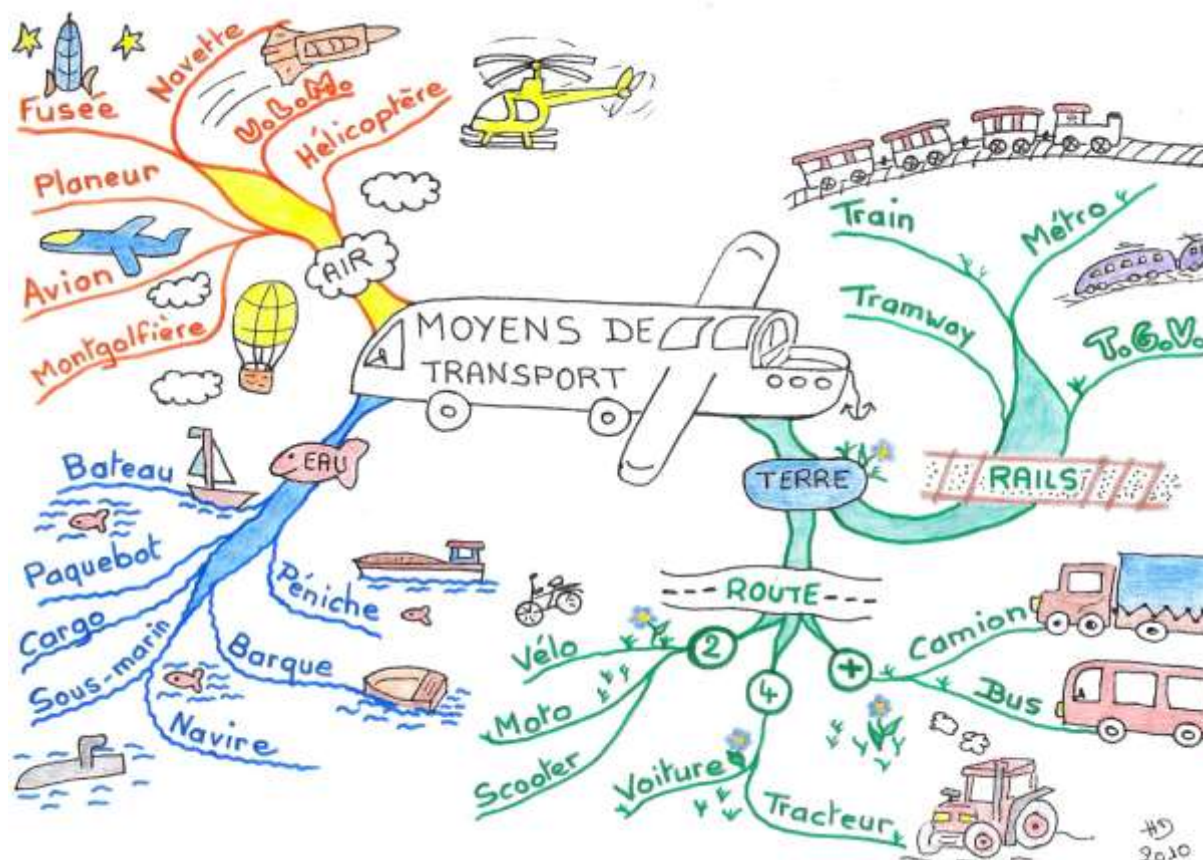
Takerða uđun 2:teskanay-d "imqimen ilelliyen"

Deg umur-a nefka-d kra n yimediyaten yef wamek d wanida i nezmer ad nessqdec takerða tanallayt. Deg wayen i d-yetteddun ad d-nessisen amek i d-yettili lebni n tekrða-ya d wallalen i nesra i lebni-ines.

¹Kif aybalu, asb.225.

3 Amek i d-yettli lebni n tkerċa tanallayt?

Lebni n tkerċa tanallayt yettli-d ilmend n snat n tarrayin: tin s ufus d tin s useyzen. Tarrayt n ufus, nesseqđac deg-s allalen-a: tiferret, ayanib ney imru d yiniten. Tugna yellan ddaw temmal-d takerċa tanallayt temmug s ufus.



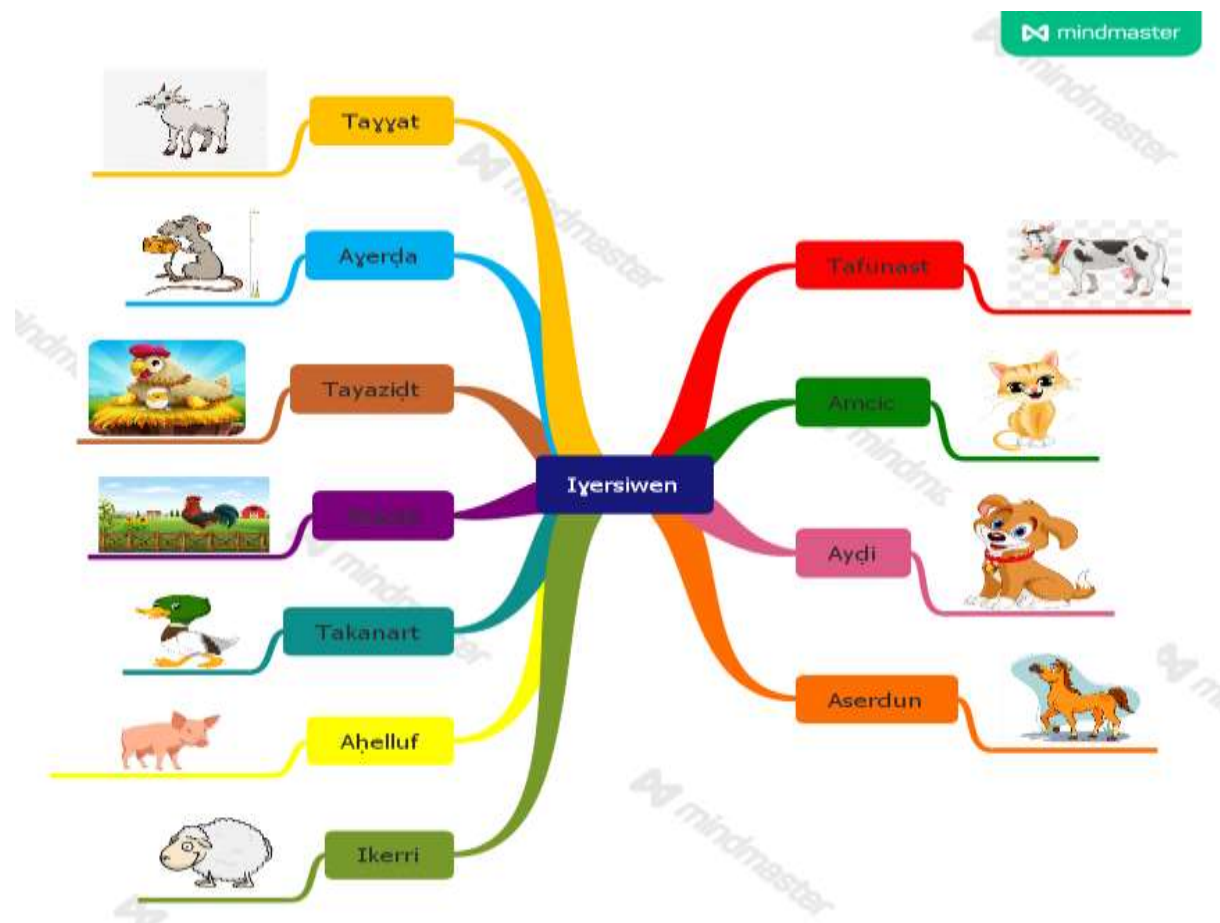
Takerċa uġġun 3: amawal n wallalen imensiyejn.

Tarrayt n useyzan, deg-s ad neħwaġ aselkim, agdil. Florence Kémer d Thierry Verstraete (2014), nnan-d: « Lebni n tkerċa tanallayt ibeddu seg tiki i yellan deg tlemmast (s ufus ney s useyzen) deg tlemmast n usalel (d tiferret ney d agdil) »¹. Ihi takerċa tanallayt tettli-d ama s ufus ney s yiseyżanen. Wid yettwassnen d: (FreePlane, Xmind,

*«La réalisation d'une carte mentale part d'une idée centrale représentée (manuellement ou à l'aide d'un logiciel) au centre d'un support (papier ou écran).

¹Krémer Florence, Thierry Verstraete, 2014, «la carte mentale pour favoriser l'apprentissage du business model et susciter la créativité des apprenants mind mapping for fostering business model learning and learners' creativity», *Revue internationale PME*, 27(1), Asb.72.

MindMaster...). Tugna yellan daw, temmal-d takerða i d-nexdem s useyzan iwumi qqaren : MindMaster .



Takerða uṭṭun 4: takerða temmug s wallal n useyzan, tewwid yef uktawal n wawal ayersiw.

3.1 Ilugan n lebni n tkerða tanallayt:

Ilmend n Buzan T., llan kra n yilugan i yessefk ad neḍfer akken ad d-nebnu takerða tanallayt. Dayen ara d-nessisen deg tseddart i d-itteddun.

Deg tazwara ad d-nheggi asentel agejdan iyef ara tbedd tkerða tanallayt. Asentel-a ad yili deg tlemmast d netta i d ul n tkerða-ya akken ad d-nejbed lwelha n yimeyri yer yur-s, yezmer ad yili d tamidrart ney d tugna. Syin akkin, as-d-nezzi s tfurkac, yal tifurkect ad d-frunin deg-s tiyyaḍ, tineggura-ya ttwassisen-d s tmiḍranin d tiħerfiyin akked tugniwin, izamulen, unuyen. Ad yili usemres n yiniten, dya yal tifurkect s yinit yemxalaf yef tayed

akken ad d-nejmae agraw n tektiwin ad tent-nessemgired yef tfurkac-nniđen, aya yessishil tigzi d cfawat. Deg taggara, tayuri n tkerða tanallayt tettili-d am tyuri n ureqqas n tamert.

4 Asissen n yiferdisen igejdanen n tkerða tanallayt:

Deg wayen yezrin nessegza-d amk i d-yettili lebni n tkerða tanallayt, tura ad yili usissen n yiferdisen igejdanen i yettilin deg tkerða tanallayt:

4.1 Tugna

Tugna d allal yesean azal deg uselmed imi tettuneħsab d ttawil i yesseqdac uselmad deg tneyrit am wakken tetteawan deg usegzi n temsirin-is. Deg usegzawal n Larousse ad naf sbadun tugna akka: « *D tigensest i d-yesnekwayen amdan, ayersiw, ney kra n tyawsa s tzuri tudlift, tawellaft, asaru* »^{*1}. Tugna tettegensi-d ayersiw, amdan ney d tayawsa s wallalen yemxalafen am lkayed, tilizri...

Deg lebni n tkerða tanallayt yettili usemres n tugniwin. Am wakken i d-nnan Tony d Barry Buzan., « *Takerða tanallayt d allal igerrzen i ulmad, deg-s nessemras tugniwin, nettat s timmad-is d tugna* »^{*2}. Deg tkerða tanallayt yettili useqdec n tugniwin, nettat s timmad-is tettak-d tikti d tmuyli tamatut yef yisali i d-tewwi.

Tugna d asalel i yetteawanen inelmaden deg cfawat imi d taywsa i ttwalin s wallen-nsen. Conficus yeqqar-d: « *Ad slej ad ttuy, ad zrey ad cfuy, ad xedmey ad gzuy* »^{*3}. S wawal-nniđen, nceffu yef wayen nettwali s wallen-nney ugar n wayen nsell.

Deg lebni n tkerða tanallayt nessemras tugniwin akken ad nessishil tigzi yef yinelmaden, rnu yur-s akken ad ten-id-nessenteq, ur tent-nessemras ara icbaħa n tkerða. Jean-luc Deladrière d wiyid nnan-d: « *Tugna tif tiwinas n wawalen* »^{*4}. Seg waya nezmer

*«image.représentation d'un être ou d'une chose par les arts graphiques, la photographie, le filme »

¹Larousse,1997,Dictionnaire de français,Larousse-Bordas,Asb,212 .

*«Le mind map est un outil d'apprentissage exeptionnel.Il utilise des images, et il est lui-même une image»

² Buzan T akked Buzan B.,2003 ,bdr-ya, asbter 84 .

*«J'entends, j'oublie.Je vois, je me souviens. Je fais, je comprends»

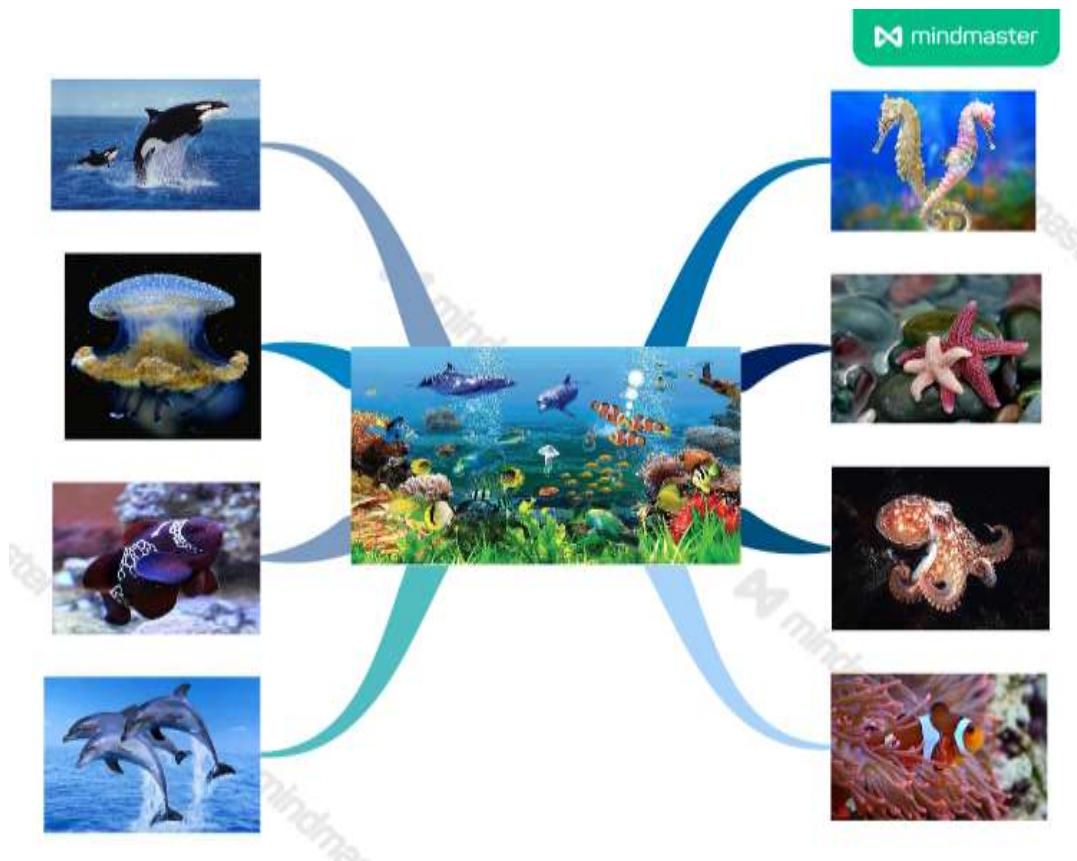
³Jean-Luc Deladrière d wiyid, 2007, bdr-ya, Asb,1

*«Une image vaut mieux que mille mots»

⁴Kif aybalu, Asb,15 .

ad d-nini tugna tezmer ad d-teslal ugar n twinas n wawalen,yef waya, tugna tettuneħsab d aferđis agejdan deg tkerða tanallayt.

Amedya:



Takerða uţţun 5: takerða tebna s tugniwin

4.2 Unuy

Unuy d aferdis gar yiferdisen i nessemras deg tkerða tanallayt. D yiwet n tzuri i d-ijebden lebyi n yinelmaden yer ulmad s talyiwin n wunuyen yemgaraden n kra n tyawsa ney n kra n tikti d yijerriden izehranen imalen i yettilin deg tkerða. Deg usegzawal n Larousse ad naf sbadun unuy: « *D tigensest yef yiwet n tjemma n talya n kra n tyawsa ney n wudem* »¹. Unuy yesnekway-d amek tga kra n tyawsa.

*« Représentation sur surface de la forme d'un objet ou d'une figure »

¹Larousse, 1997, bdr-ya, Asb.119.

Nessemras unuyen deg tkerċa tanallayt akken ad d-nejbed lwelha n yinelmaden, tin yur-s akken ad ten-eiwen deg tegzi.

Amedya :



4.3 Init

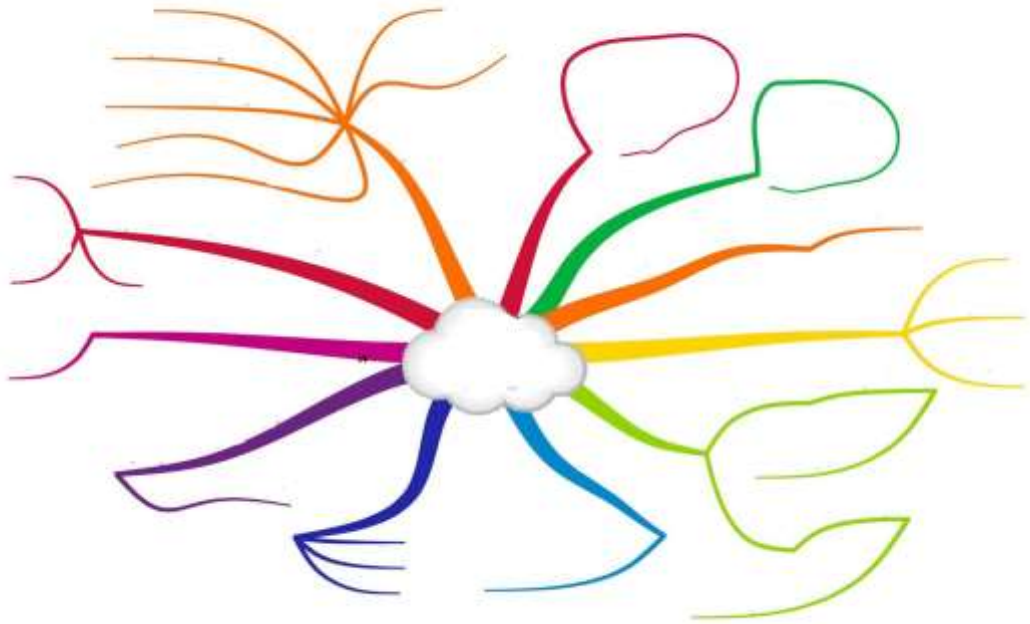
Init d asalel i yesεan tamlilt d tameqqrant deg lebni n tkerċa tanallayt imi yettuneħsab d aferdis amezwaru i d-ijebden tamuħli n unelmad akken ad yerr lwelha-s ħer ħur-s. Yessishil fell-as tigzi d cfawat imi yal tikti tettwasissen-d s yinit iman-is. Tony d Barry Buzan nnan-d:« *Init yesεa aħfir igerrzen ħef wallay imi seg-s i nezmer ad neg aħas n tħawsiwin i yesnernayen axemmem deg usuddes, asismel, tasleħt akked ulmad, init yessendah allay ad yexdem ugar imi ad yili yinit ijebbed-d lwelha anect-a yetteawan deg cfawat* »*¹.

Ihi, init ijebbed-d lwelha-nney, yetteawan allay deg waħas n tħawsiwin am uxemmem aya igellu-d s cfawat akked tigzi.

*«La couleur a des effets étonnants sur le cerveau.Grâce à elle, vous pourrez accomplir bien des choses qui accroîtront la puissance de votre réflexion : organiser, catégoriser, surligner, classer, coder, analyser et apprendre.De plus, la couleur vous stimule, fait fonctionner davantage de neurones et tout en étant attrayante, accroît votre aptitude à mémoriser»

¹ Buzan T akked Buzan B., 2012, bdr-ya, Asb, 66.

Amedya:



4.4 Azamul

Deg lebni n tkerða tanallayt yettili usemres n tugniwin, unuyen, initen. Akken dayen i nessexdam deg-s izamulen imi ineggura-ya tteawanen deg tegzi d cfawat, rnu yur-s, ttaġġant anelmad ad yesæu timegleyt yer ulmad-is. Deg usegzawal n Larousse ad naf azamul « *Yettgensis-d kra n tilawt i yellan d tamadwant: titbirt d azamul n talwit* »¹. Ihi azamul yesnekway-d tilawt tamadwant n kra n tyawsa.

Amedya:



Ul d azamul n tayri



Lmizan d azamul n teydemt

*«Symbole. Ce qui représente une réalité abstraite : la colombe est le symbole de la paix »

¹Larousse, 1997, bdr-ya, Asb, 111.

Iferdisen-a akk lan azal deg uselmed imi ssishilen almad i yinelmaden tin yur-s ssifsusen fell-asen tizri d cfawat n wayen lemden, akken dayen i tteawanen aselmad deg uselhu akked usegzi n temsirt i yinelmaden.

5 Tixutert n usemres n tkerða tanallayt deg uselmed

Takerða tanallayt d allal i yessishilen tizri n tmussniwin akked uħraz-nsent deg tkettut. Tettuneħsab d allal asensegmi i yettusemrasen deg uselmed imi irennu deg tezmert n umhaz n yinelmaden deg ulmad-nsen. Allal-a yesea atas n tbuyar deg tayult n uselmed ama i unelmad ama i uselmad.

Gar tbuyar i tesea tkerða tanallayt , ad naf tettağğa anelmad ad yelmed s tarrayt n wurar d unecraħ, tin yur-s, tetteawan-it ad yerr ddhen-is akken iwata deg lawan n ulmad. Akken dayen i tetteawan anelmad deg usexdem n wallay-is, tessishil fell-as tizri d cfawat s tugniwin, wunuyen, izamulen d yiniten i yettilin deg-s. Am wakken i tessishil yef uselmad asegi n temsirin, ur tettawi ara atas n wakud. Yezmer ad tt-yessemres uselmad am tsuddest i yettewawanen yef usmekti n tektiwin, tetteawan-it deg uskan n tmuyli tamatut n kra n usentel i yellan d ameqqran...

Takerða tanallayt d allal seg wallalen i yesean tamlilt deg uselmed d ulmad imi teskanayen assayen gar tektiwin s yiwen n usalel i yellan d amuyli, aya yessishil tizri n yisali d cfawat-is, yef waya i yelha useqdec n tkerða tanallayt deg uselmed d ulmad. Akken ttwalin Novak d Gowin : « *Takerða tanallayt tetteawan deg lebni n tmusniwin s umata tesseğhad almad. Lebni n tkerða tanallayt yettewawan deg cfawat akked ulmad, ihi d amezzul asemres n wallal-a asnalmudan i uselmed d ulmad* »*¹. Ihi takerða tanallayt d allal asnalmudan i uselmed d ulmad imi yessishil almad n tmussniwin d cfawat fell-asent.

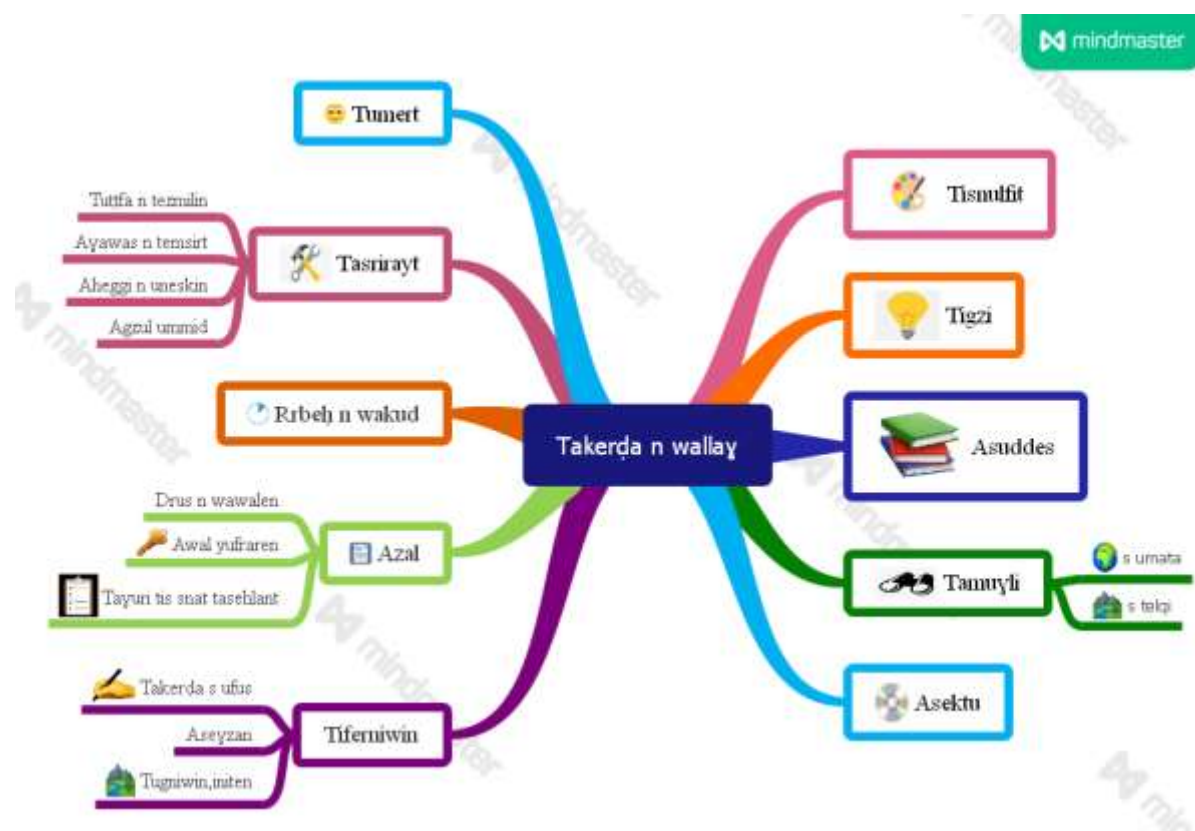
*« La carte mentale aide à conceptualiser et formaliser des connaissances afin de favoriser l'apprentissage en général. Le fait de construire la carte mentale aide à la mémorisation et à l'apprentissage il est donc logique d'appliquer cet outil didactique dans l'E/A»

¹ Tong Yang, 2019, « La carte mentale, un outil didactique d'aide à la mémorisation pour l'enseignement/apprentissage du lexique», RJC2017-20èmes rencontres des jeunes chercheurs en sciences du langage, Paris, Asb, 8.

*« Le mind maps sont particulièrement utiles pour aider tous ceux qui ont des difficultés d'apprentissage»

Yerna tikerdiwin tinallayin «*Seant tibuyar ladya i uwiwen n wid yesan uguren deg ulmad*»¹. Seg waya ad negzu takerða tanallayt tla aṭas n yibuyar ama i uselmad, ama i unelmad.

Takerða i d-yetteddun ad tegmer akk yibuyar i d-nebder.



Takerða uṭṭun 6: asissen n tbuyar n tkerða tanallayt

Takerða tanallayt d allal i nezmer ad nesseqdec deg tuget n tirmad n tegzemt ladya aselmed n umawal. Ilmend n Tong Yang: « *Takerða tanallayt tettusemras i uselmed n umawal maca ilaq ad negg deg lbal-nney, allal-a nezmer ad t-nessemres i uselmed n tirmad-nniḍen n tegzemt*»². Takerða tanallayt d ttawil i nezmer ad nesseqdec i uselmed n tuget n temsirin ama d amawal, tajerrumt ... Gar wid yesmersen takerða tanallayt deg

*« Le mind maps sont particulièrement utiles pour aider tous ceux qui ont des difficultés d'apprentissage»

¹ Buzan T akked Buzan B.,2003 , bdr-ya, Asb, 229.

*«La carte mentale est appliquée pour l'enseignement du lexique mais il faut garder à l'esprit que cet outil peut également être adapté pour d'autre enseignements de sequence»

²Tong Yang, 2019, brd-ya, Asb, 19.

uselmed ad naf Tong Yong d Cavalla¹ semmrassen-tt i uselmed n umawal i icudden yer tkuzint.

5.1 Tixutert n tkerða tanallayt deg usnerni n tzemmar timawalanin n yinelmaden

Nemmeslay-d deg wayen yezrin yef yibuḡar n tkerða tanallayt deg uselmed sumata, tura ad d-nessegzi azal n tkerða tanallayt deg uselmed n umawal ladya imi asentel-nney yewwi-d yef wannect-a.

Amawal d armud i yettilin deg yal tagzemt. Yesæa azal deg ulmad n tutlayt, aṡas n wallalen i yettusemrasen i uselmed-ines am: tizlatin, tugniwin... Maca deg umahil-a nefren allal n tkerða tanallayt i uselmed n urmud-a imi tesæa tamlilt d tameqqrant deg ulmad, aya seg tixutert-ines deg timegleyt akked tigzi d cfawat n yinelmaden (ad nemmeslay fell-asen s telqi deg wayen i d-yettuddun). Dya d wiya i d iferdisen igejdanen i yettaḡḡan inelmaden ad snernin tizemmar-nsen s shala deg ulmad-nsen.

5.1.1 Takerða tanallayt d allal imegley

Timegleyt tesæa azal deg usnerni n tzemmar n yinelmaden deg lawan n ulmad-nsen acku teslalay-d lebyi-nsen yer tyuri. Ad naf Mokadem Myriam., tenna-d: « *timeglyet d tagruma n yimigan iwiwlanen i d-yeskarayen yer unelmad ney yer ugraw n yinelmaden lebyi n ulmad* »*². Ma yella tyab tmegeleyt deg tneyrit ad naf inelmaden ur ttarran ara ddhen-nsen aṡas yer temsirt. Tin yur-s, ur ḡemmlen ara ad yren, yef waya i yelha yef uselmad ad d-yeslalay timegleyt deg tneyrit s useqdec n wallalen i d-ijebden lwelha n yinelmaden i tyuri. Gar wallalen-a tella tkerða tanallayt. Rumelhart d Ortony (1976)

¹Tang Yang et Cavalla Cristelle, 2019, «l'enseignement du lexique culinaire auprès des apprenants de niveau A2», *revue redillet (revista digital internacional de lexicologia, lexicofia y terminologia)*, cordoba(Argentine).

* « La motivation est l'ensemble des facteurs dynamiques qui suscitent chez un élève ou un groupe d'élèves le désir d'apprendre ».

² Mokadem.M.,2016, « La motivation comme facteur de réussite scolaire »,*Education.dumas-01430237,asb.07.*

segzan-d: « *Tikerðiwin tinallayin ur seint ara tamlilt anagar deg lebni n tmussniwin maca tzemmer ladya ad tessekcem anelmad deg ul n ulmad-is* »^{*1}.

Seg tebdar-a ad negzu aseqdec n tkerða tanallayt deg tneyrit yeslalay-d lebyi n yinelmaden yer ulmad-nsen, am wakken dayen i teggar anelmad d axel n ulmad-is.

Ihi takerða tanallayt d allal imegley i yinelmaden deg ulmad-nsen, tin yur-s tjobbed-d lwelha-nsen s yiniten, unuyen, izamulen d tugniwin i yettilin deg-s. Ineggura-ya slalayen-d anezwu innecraħ deg tneyrit, ttağğant tamsirt-nni ad tili d tanurart... D anect-a i yettakken tagnit i yinelmaden akken ad snernin tizemmar-nsen deg ulmad-nsen.

5.1.2 Takerða tanallayt d allal yetteawanen deg tigzi d cfawat

Takerða tanallayt d allal yetteawanen deg usexdem n wallay ladya deg tegzi d cfawat, ineggura-ya ttunehsaben d tasarut deg uful n unelmad ara as-d-yeldin tiwwura i usnerni n tzemmar-is. Sumata tigzi d cfawat d lsal n yal almad, yef waya Michél Dechsler yenna-d: « *Takerða tanallayt tesnirif tiffin n ddhen akked tigzi d cfawat* »^{*2}. Takerða tanallayt d allal yetteawanen deg ujbaw n lwelha, tessishil tigzi d cfawat.

Cfawat mačči dayen i d-yettasen yeshel, tesra lwelha d tiffin n ddhen ladya deg ulmad n wawalen imaynuten. Ad naf tong yong ibedred leqdicat n Goody i d-yefyen deg useggas n (1969) akked leqdicat n Boulton i d-yefyen deg useggas n (2000) ufan-d: « *Asuddes n wumuyen d tiffin n lwelha fell-asen d snat n tigawin i yetteawanen deg cfawat n umawal, akken dayen asilef n lebni n tkerða tanallayt yetteawan dayen deg cfawat n umawal* »^{*3}.

*« Les cartes mentales ne jouent pas seulement un rôle dans la construction des connaissances mais elles permettent surtout de placer l'apprenant au cœur du processus d'apprentissage »

¹ Longeon Thomas., 2013, « La carte heuristique au service d'une pédagogie active », *CIREL-Centre interuniversitaire de Recherche en Education de Lille-ULR 4354* : EA10033.Asb, 03

*« La carte mentale favorise la concentration, la compréhension et la mémorisation. »

² Michéle Drechsler., 2010, *La carte mentale au service des apprentissages*, yemzer ass 22/02/2022, deg uzetta tansa-s:

<http://groupes-premier-degre-36.tice.ac-orleans-tours.fr/eva/sites/groupes-premier-degre-36/IMG/pdf/ CarteMentaleServiceApprentissages1.pdf>

*« Nous constatons qu'organiser des listes et se concentrer dessus sont deux activités qui aident à la mémorisation. Par ailleurs, le geste de construire la carte mentale aide également à la mémorisation du lexique »

³ Tong Yang., 2019, bdr-ya, Asb,7.

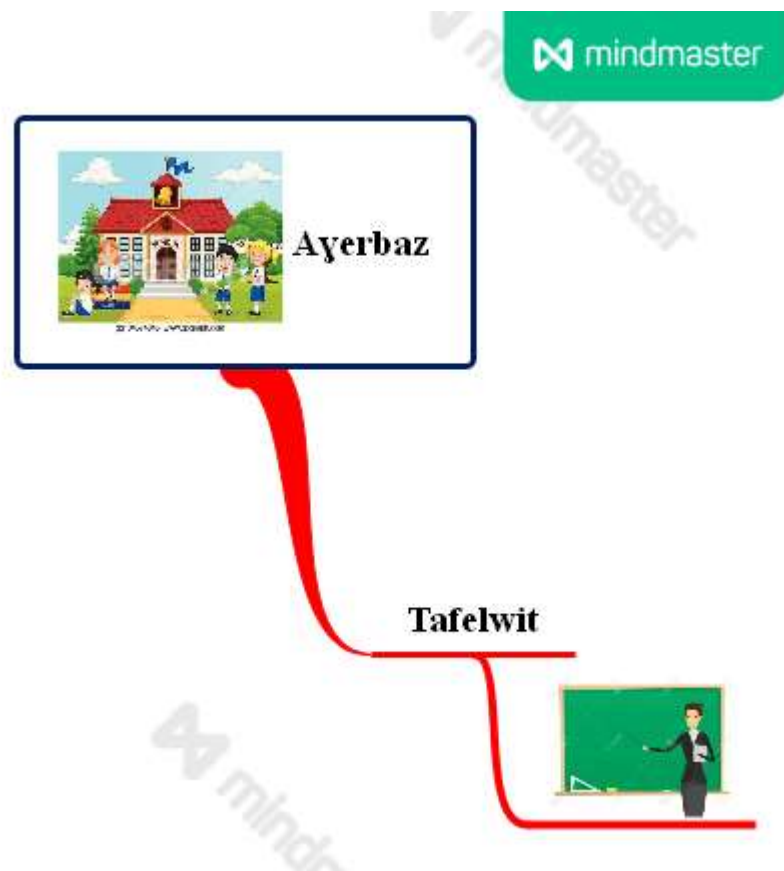
Ihi lebni n tkerða tanallayt yetteawan deg cfawat n umawal imi deg-s yettili usuddes akked turrin n lwelha yef wawalen icudden yer umawal i lemden.

Allal n tkerða tanallayt yessishil ugar cfawat aya s yiferdisen i yettilin deg lebni-ines, tamezwarut, talya n lebni-ines i tektiwin, rnu yur-s, asemres n tugniwin, initen, unuyen d yizamlen sean tazrirt yef wallay n unelmad, tetteawan-it ad yehrez timussniwin deg tkettut-is. Akken dayen i ssishilen tigzi.

Amedya:

Amawal n uyerbaz.

Ad nexdem tikti tagejdant deg tlemmast n tferret (ayerbaz). Syin ad d-nessufey awalen icudden yur-s am tafelwit ad as-nexdem sdat-s tugna i d-yettgensisen tafelwit, anelmad yas ur yegzi ara anamek n wawal-nni maca mi ara ad izer tugna-nni ad yegzu d acu i d anamek n wawal-nni yef waya i tesa tugna azal deg lebni n tkerða tanallayt.



Takerða uṭṭun 7: amawal n uyerbaz

Ihi ad d-nini ulac cfawat war ma tella tegzi akken dayen, ma yella ur negzi ara, ur nezmir ara ad necfu dya wiyi tigzi d cfawat d sin n yiferdisen i yettemsettbaæn, wa yettsennid yef wayed, ur nezmir ara ad ten-nefreq yef waya takerḍa tanallayt i tessa azal d temlilt d tameqqrant deg uselmed imi i d-tettak tigzi d cfawat s shala i yinelmaden.

Taggrayt

Deg taggara n uħric-a nufa-d, asemres n tkerða tanallayt deg tegratin n ulmad d uselmed igellu-d s yigemmađ yelhan ama i uselmad imi tessifsus fell-as asiweđ n yizen d tmussni ney i yinelmaden imi tetteawan, tessishil fell-asen almad n tmussiniwin, rnu ħur-s txeddem-d acmumeđ d lebyi n yinelmaden i ulmad.

Deg uħric-a nemmeslay-d ħef wallal n tkerða tanallayt, s umata nessesen-d akk iferdisen i nesra deg tezrawt-a.

S uħric-a ad nekfu awal ħef wayen yellan d tizri. Syin ad nekcem ħer uħric n tesnarrayt ideg ad yili umeslay ħef tarrayt ara neđfer i ugmar n yinefkan yerzan leqdic-a d wamek ara tili tesleđt-nsen.

Ahric wis sin: Tasnarrayt

Tazwert

Aħric n tesnarrayt, d aħric ideg i d-yettili usegzi d usfukel n kra n yiferdisen isnarrayen iyef ibedd yal leqdic ussnan, imi d iferdisen-a ara ay-yessiwden ad d-nerr yef usteqsi agejdan i d-nefka deg tazwara. Ihi deg uħric-a ad d-nessisen allalen ara nessemres i tagmert n yinefkan.

Deg tazwara ad d-nesissen annar ideg i d-negmer inefkan akked uswir i nefren, syin akkin, ad yili wawal yef tarrayt ara nesseqdec i tegmert akked tesleđt n yinefkan.

1 Asissen n unnar d uswir n yinelmaden

Leqdic-a yesra i unadi deg unnar acku seg-s i nezmer ad d-nawi inefkan ara ay-ieiwnen akken ad d-nerr yef usteqsi agejdan akked ad nessidet turda i d-nessumer deg umahil-a. Nefren ad neg tasastant-nney deg uyerbaz amenzu iwumi qqaren "Hassani El Hachmi " i d-yezgan deg tyiwant n " Aokas".

Timental i ay-yeğgan ad nefren ayerbaz-a, tamezwarut imi taselmadt n tmaziyt i yesyarayen deg uyerbaz-a tesa tirit deg uselmed ugar n yiselmaden-nniđen i nessen deg tyiwant-a, tis snat dinna i ay-tettunefk tegnit akken ad nexdem tasastant-nney.

Nefren aswir wis semmus imi yettuneħsab uyerbaz amenzu d lsas n yal almad, yef waya nwala allal n tkerđa tanallayt iwulem aswir-a. Tin yur-s nettwali-t d allal ara asen-ıejben, ara asen-yessishilen almad.

2 Tarrayt n ugmar n yinefkan

Iwakken ad d-negmer inefkan i nesra i tezrawt-a, neđfer tarrayt n tannayt deg tneyrit. Aya ay-yessiweđ yer taggara akken ad d-nerr yef ugnu n umahil-a.

2.1 Tannayt

Tannayt deg tneyrit d yiwet n tfakust gar tfukas n unadi. Stéphane Martineau., yesbadu-d tannayt « *D allal n ugmar n yinefkan ideg amnadi ad yuđal d anagi i wayen*

*xedmen yimdanen akked tirmad i d-yettilin deg yiwen n ugraw d yiwen n umkan »*³⁰. Ihi seg tannayt i yezmer umnadi ad d-yeglem tirmad i yettilin daxel n tneyrit.*

Akken ad nessiweđ ad nessidet turda n umahil-a i d-yeqqaren " *takerđa tanallayt txeddem-d timegleyt deg tneyrit imi deg-s ttilin izamulen, initen, tugniwin, unuyen ... dayan i d-ijebden inelmaden ugar yer temsirt*". Nefren tarrayt-a n ugmaw imi s yes i nezmer ad nwali srid s timmad-nney ayen iderrun deg tneyrit. Nga tannayt-a deg tneyrit n uswir wis semmus akken ad nzer ma takerđa tanallayt tetteawan inelmaden deg tegzi, ma tgellu-d s timegleyt deg tneyrit.

2.1.1 Asissen n tfelwit n tannayt:

Tafelwit n tannayt i d-nesbed tebđa yef sđis n texxamin deg tihrew, akked ukkuz n texxamin yef teyzi d ayen ara d-nesken deg wayen i d-itteddun.

Deg tazwara, nessasen-d azerbaz ideg nexdem tannayt, azemz d wachal n wakud i tettef tannayt-nni, yella-d dayan uzwel n usenfar akked tegzemt ideg tella temsirt i neħder d yiswan-is, akken dayan i d-nessasen allalen i yettwasqedcen deg temsirt. Tafelwit-a nebđa-tt s talya-ya:

- Taxxamt tamezwarut d imataren n yittewlen.
- Taxxamt tis snat d ittwelen iyef tbedd tannayt.
- Taxxamt tis krad deg-s azamul-a (+), yemmal-d ih.
- Taxxamt tis ukkuz deg-s azamul-a (-), yemmal-d ala.
- Taxxamt tis semmus deg-s azamul-a (+ /-), yemmal-d gar-asen.
- Taxxamt taneggarut d tamiwin, deg-s ad d-neglem yal attwel seg wayen i nwala deg tannayt i nga.

* «Un outil de cueillette de données où le chercheur devient le témoin des comportements des individus et des pratiques au sein des groupes en séjournant sur les lieux même où ils se déroulent»

³⁰ Stéphane Martineau, 2004, « l'observation en situation : enjeux, possibilités et limites », deg *l'instrumentation dans la collecte des données*, asb.06 .

<p>Ayerbaz :</p> <p>Azemz:</p> <p>Tamert:</p> <p>Tamsirt:</p> <p>Tineyrit:</p>	<p>Asenfar</p> <p>Tagzemt :</p> <p>Iswi n temsirt :</p> <p>Allalen yettwasmersen deg tneyrit :</p>
---	--

Imataren	Ittewlen	(+)	(-)	(+/-)	Tamawt
Addad n yinelmaden deg tneyrit	-inelmaden ssusmen. -inelmaden sean timegleyt ad yren				
Tikli n yinelmaden deg lawan n useqdec n tkerða	-Inelmaden smeħsisen, rran-d lwelha-sen yer temsirt . -Takerða tanallayt tejbed-d lwelha n yinelmaden ad yren . -Inelmaden ttekin deg temsirt.				
Timegleyt n yinelmaden deg tneyrit	-Iferdisen yettilin deg tkerða n wallay: tugniwin, unuyen d yiniten tteawanen deg ulmad. -Inelmaden refden-d ifassen-n sen akken ad d-rren yef yisteqsiyen -Inelmaden akken ma llan ttekin deg uskasi daxel n tneyrit -Yella unecreħ deg tneyrit				
Tigzi n temsirt syur yinelmaden	-Takerða tanallayt teawen inelmaden ad gzun inumak n wawalen -Inelmaden gzan s shala tamsirt n umawal s wallal n tkerða tanallayt				

Tafelwit uṭṭun 1: Tafelwit n tannayt i nesseqdec deg temsirt n umawal i d-yewwin yef usentel n twennaḍt

2.1.2 Iswi n yimataren:

Ihi akken i d-nenna tafelwit n tannayt tbedd yef ukkuz n yimataren, yal amatar yesæa iswi, ad ten-d-nessegzi deg wayen i d-iteddun.

- Addad n yinelmaden deg tneyrit, iswi-s ad nzer inelmaden amek gan send beddu n temsirt, ad nwali inelmaden ma sussmen ney tæegiðen, rnu yur-s ad nzer inelmaden ma sæan timegleyt i tyuri.
- Tikli n yinelmaden deg lawan n useqdec n tkerða tanallayt, iswi-s nebya ad nzer ma yella inelmaden rran-d lwelha-n sen yer temsirt, akken dayen ad nwali ma takerða tanallayt tjebed-d lwelha-n sen i tyuri, ma ssawðen ad ttekin deg temsirt.
- Timegleyt n yinelmaden deg tneyrit, iswi-s ad nwali ma tella tmegeleyt deg tneyrit aya s yiferdisen i yettwasmersen deg tkerða, dya ad nzer ma gellun-d s lebyi n yinelmaden i tyuri d tmegeleyt dixel n tneyrit, ad nwali dayen ma ssawðen ttekin deg uskasi yef temsirt akked ma yella takerða-ya teslul-d ancreh n yinelmaden deg lawan n ulmad.
- Tigzi n temsirt syur yinelmaden, iswi-s ad nzer ma yella takerða tanallayt tessishel, tessifsus yef yinelmaden tigzi n yinumak n wawalen. Rnu yur-s ad nzer ma yella ssawðen ad gzun s sshala amawal n twennaðt s wallal-a.

2.1.3 Asissen n temsirt i neħder:

Tamsirt n umawal i neħder tewwi-d yef usentel n twennaðt i d-yellan deg usenfar wis ukkuz azwel-is: " aseħbiber d umesten n twennaðt ", tagzemt tamewarut azwel-is: «asaki n yimdanen yer yimihan n usimes n twennaðt . Deg temsirt-a yella-d useqdec n tkerða tanallayt, i d-nhegga s useyzan iwumi qqaren Mindmaster, syin nessufey-itt-id s talya tameqqrant yef usallel n lkayeð akken ad d-binen yiferdisen-is akken iwata i yinelmaden syin nefka-t i tselmadt akken ad tesselħu tamsirt-is yes-s. Takerða tanallayt i nessemres d ta:



Takerða uṭṭun 8: Takerða n i nessemres deg temsirt n umawal.

Takerða tanallayt terza amawal n twennaḍt, i d-nefka kra n wawalen iccudden i usentel-a. Deg tkerða-ya nesseqdec: tugniwin, initen. Yal awal nessassen-t-id s tugna it-id-yemmalen, syin neqqen-iten s yijerriḍen yer usentel agejdan i yellan deg tlemmast. Yal ajjerriḍ s yinit iman-is, init azegzaw yemmal-d aman (isaffen, tala...), aqahwi yemmal-d akal (ayurar), aḥcayci yemmal-d (imyan, tizgi)... Iwakken ad d-nejbed lwelha n yinelmaden akken ad issinen amawal n twennaḍt rnu, ad ten-neiwen deg tegzi n yinumak n wawalen-a.

Syin simmal tamsirt tleḥḥu, simmal nettsemmid tafelwit n tannayt ilmend n yittewlen i d-nessumer.

3 Tarrayt n tesleđt

Tasleđt-a terza inefkan id-negmer seg tfelwit n tannayt i nexdem dixel n tneyrit.

Tura ad neđdi ad d-nessisen tarrayt n tesleđt n yinefkan i d-negmer seg tannayt .

3.1 Tarrayt n tesleđt n tfelwit n tannayt

I tesleđt n yinefkan i d-negmer seg tfelwit n tannayt deg tneyrit n uswir wis semmus, yewwi-d ad neg tasleđt ilmend n yittewlen i d-nessumer seg yal amatar i d-nebder yakan deg ussisen n tfelwit, akken ad d-nawi ugar n yisallen yef useqdec n wallal n tkerđa tanallayt deg temsirt n umawal i neħder. Iswi-s ad nwali addaden n yinelmaden deg lawan n useqdec n wallal n tkerđa tanallayt, ma yella allal-a ijebbed-iten-id ad lemden, tin yur-s ad nwali ma yeslalay-d timegleyt dixel n tneyrit.

Syin, ilmend n wayen i nwala deg tneyrit, yal amatar ad as- neg tasleđt ilmend n tamiwin akked tririyyin yef yittewlen i d-asen-nefka: (+),(-),(-/+). Yer taggara ad neg tasemlilt i yigemmađ iyer nessaweđ deg tesleđt-a n tfelwit n tannayt. S wakka ara naweđ ad d-nerr yef turda i d-nesumer.

Taggrayt

Deg uḥric-a n tesnarrayt nmeslay-d yef wayen akk yerzan iferdisen d tarrayin ara nedfer deg ugmar n yinefkan yerzan leqdic-a ussnan. Aya ay-ieiwen akked, ad yessifsis fella-ay tasleḍt.

S wanect-a nessawed yer taggara n uḥric-a i yellan d lsas aḥrayan d usnarrayan fell-as i tbedd tesleḍt ara neg deg yixef i d-itteḍdun.

Taggrayt n yixef

Ixef-a nebda-t yef sin n yiħricen. Amezwaru d aħric n tezri, deg-s newwi-d ameslay yef wayen yerzan sumata takerða tanallayt. Ma deg uħric wis sin nessegza-d tasnarrayt i neđfer deg usebbed n leqdic-a, imi deg-s newwi-d awal yef tarrayt i neđfer deg tegmert n yinefkan, akken ad naweđ yer tririt yef usteqsi agejdan d turda i d-nefka.

Ihi mi nekfa ixef n tezri d tesnarrayt, ad neeđdi yer yixef wis sin n tesleđt n wammud n yinefkan i d-negmer.

**Ixef wis sin: Tasledt n
yinefkan**

Tazwert n yixef wis sin

Ixef-a yerza tasleđt n yinefkan n tannayt i nexdem i yinelmaden n uyerbaz amenzu s wallal n tkerđa tanallayt akken ad nwali ma aseqdec n ttawila yetteawan-iten s tidet deg usnerni ugar n tizemmar-nsen deg ulmad n umawal,akked dayen ma tgellud s timegleyt.

S yigemmađ n tesleđt n uđric-a, ad nessiweđ ad d-nefk tiririt yerna ad nessidet turda n umahil-a i d-yeqqaren:« Takerđa tanallayt txeddem-d timegleyt deg tneyrit imi deg-s ttilin izamulen, initen, tugniwin, unuyen ... dayen i d-ijebden inelmaden ugar yer temsirt.

Tasleđt n yinefkan n tannayt

Tazwert

Deg uħric-a, ad neg tasleđt i yinefkan i d-negmer seg tannayt i nexdem deg tneyrit akked yinelmaden n uyerbaz amenzu aswir wis semmus yef temsirt n umawal s wallal n tkerđa tanallayt, iwakken ad nwali ma yella allal-a yetteawan deg usneri n tzemmar timawalanin n yinelmaden.

Akken i nwala deg uħric n tezri, takerđa tanallayt d allal asnalmudan, tbedd yef wařas n yiferdisen am: tugniwin, initen, unuyen... Iferdisen-a ttaran lwelha n yinelmaden. Ihi deg tesleđt-a ad d-nesken lađya amek i tesseglay tkerđa tanallayt inelmaden.

Deg wayen i d-yettuddun, ad neg tasleđt i yal attwel akked tamawin i yeqqnen yer yal amatar.

1- Tasleđt n yinefkan n tfelwit n tannayt

Tasleđt i nexdem d tasleđt n yinefkan n tfelwit n tannayt i d-yellan yef temsirt n umawal yerzan asentel n twennađt, iwakken ad nzer ma yella aselmed s tkerđa tanallayt yessishil tigzi n temsirt n umawal i yinelmaden, ma igellu-d s tmegleyt-nsen deg ulmad-nsen, dayen ara d-nesken s yigemmađ i d-negmer seg yal attwel.

Deg umur-a, ad neg tasleđt i yimataren n tfelwit n tannayt yef temsirt n umawal i yettwaslemden s wallal n tkerđa tanallayt. Dya yal amatar ad as-nexdem tasleđt ilmend n yittewlen-is d tamiwin i d-negmer deg-sen.

1.1 Addad n yinelmaden deg tneyrit

Amatar-a amezwaru, iwumi nga tasleđt d "*addad n yinelmaden deg tneyrit*", iswi-is ad nwali ma inelmaden sean lebyi i ulmad s wallal-a.

Deg tesleđt n umatar-a, nufa-d:

Amatar	Ittewlen	+	-	+/-	Tamawt
Addad n yinelmaden deg tneyrit	-inelmaden ssusmen.	x			/ Inelmaden ttnadin d acu ara ad yren ass-nni.
	-inelmaden sean timegleyt ad yren.	x			

Tafelwit uđđun 2: Tiririt yef umatar amezwaru"addad n yinelmaden deg tneyrit.

Tafelwit-a, teskanay-d tiririt i d-negmer seg unadi i nexdem yef waddad n yinelmaden deg tneyrit uqbel beddu n temsirt.

Deg uttwel amezwaru "*inelmaden ssusmen* ", nufa-d inelmaden akken ma llan ssusmen, yal yiwen yeqqim deg umkan-is, ttmuqqulen taselmadt ttrađđunt melmi ara tebdu tamsirt, dya tasusmi-ya tessishil yef uselmad aseddu n temsirt.

Tamawt i nezmer ad d-nefk da, tasusmi n yinelmaden tella-d imi wehmen seg lkayed-nni ameqqran i d-tewwi tselmadt-nni deg ufus-is acku ur uyen ara tannumi tettawi-asen-d tiyawsiwin am ti yer dixel n tneyrit.

Syin tædda tselmadt tesres tiyawsiwin-is yef tnarit, tessuter seg yinelmaden: *anwa ara d-yarun azemz n wass-a?* , dya yekker-d yiwen unelmad yenna-t-id, taselmadt tura-t-id deg tfelwit. Syin teddem-d lkayed-nni imiren inelmaden bdan ttmeslayen, ttaken-d isteqsiyen yef lkayed-nni dayen ara nwali deg uttwel i d-ittuddun. Ihi da, inelmaden deg tazwara uqbel beddu n temsirt ssusmen syin akkin imi tebya tselmadt ad tebdu tamsirt bdan ttmeslayen yid-s.

Igemmađ n uttwel wis sin "*inelmaden sean timegleyt i tyuri* ", ilmend n wayen i nwala deg tneyrit, iban-ađ-d inelmaden sean timegleyt i tyuri imi ttnadin ad eelmen d acu ara asen-tesyer tselmadt s lkayed-nni, aya iban-d deg yisteqsiyen i d-fkan kra n yinelmaden, amedya:

- *D acu d wa ayen-tewwit a massa?*
- *A massa s lkayeđ-a i d ayen-tesseqriđ ass-a?*
- *D acu-tt temsirt-nni?*

Inelmaden fkan-d isteqsiyen-a imi tekcem-iten twennaft (curiosité) byan ad eelmen d acu-t lkayeđ-nni, d acu ara xedmen s yes, ayyer it-id-tewwi tselmadt-nsen yer tneyrit.

Syin akkin , tenna-asen-d tselmadt-nsen « *tamsirt n wass-a ad tili yef umawal ara ad nyer s wudem-nniđen iyef ur tuyem ara tanummi teyyaremt akkeni, ass-a ad tt-nyer s wallal-a*». Syin , tædda tselmadt tesbed-d takerđa-nni deg tfelwit.

Ilmend n tamawt n uttwel-a, nufa-d takerđa tanallayt teslalay-d lebyi n yinelmaden yer tyuri, aya iban-d seg tekli n yinelmaden imi ttaken-d isteqsiyen byan ad zren d acu d tamsirt ara yren.

1.2 Tasleđt umatar wis sin "tikli n yinelmaden deg lawan n useqdec n tkerđa tanallayt

Amatar wis sin iwumi nexdem tasleđt, yella-d yef tikli n yinelmaden deg lawan n useqdec n tkerđa tanallayt, iswi-is ad nzer ma allal n tkerđa tanallayt ijebbed-d lwelha n yinelmaden akken ad yren rnu ad tekkin deg temsirt.

Nufa-d:

Amatar	Ittewlen	+	-	-/+	Tamawt
Tikli n yinelmaden deg lawan n useqdec n tkerđa.	-Inelmaden smeħsissen, rran-d lwelha-n sen yer temsirt.	X			-Imi zran tamsirt-nsen ad tili s tkerđa tanallayt inelmaden akken ma llan rran-d lwelha-n sen smeħsissen i temsirt.
	-Takerđa tanallayt tejbbed-d lwelha n yinelmaden ad yren.	X			-Deg tneyrit ulac sdae, inelmaden rran-d lwelha-n sen s tsusmi.
	-Inelmaden ttekin deg temsirt.	X			-Akk inelmaden byan ad d-fken tikiwin i seān yef usentel n temsirt-nni i yyaren.

Tafelwit uđđun 3: Tiririt yef umatar"tikli n yinelmaden deg lawan n useqdec n tkerđa".

Ilmend n tfelwit-a n tannayt, nufa-d deg uttwel amezwaru " *inelmaden smeħsisen rran-d lwelha-nsen yer temsirt*", inelmaden akken ma llan rran-d lwelha-nsen akken iwata, smeħsisen i temsirt imi i tikkelt tamezwarut ad lemden s wallal n tkerđa tanallayt, deg-s byan ad walin d acu yellan deg tkerđa-nni, yef wacu i d-tewwi aya iban-d deg tikli n yinelmaden imi ttmuqqulen , rran ddhen-nsen akken iwata yer tkerđa-nni.

Deg uttwel wis sin " *takerđa tanallayt tjebed-d lwelha n yinelmaden ad yren* ", nessawed yer yigemmad-a .

Ilmend n wayen i d-negmer seg tneyrit, nufa-d takerđa tanallayt tjebed-d lwelha n yinelmaden i tyuri acku tugniwin, ijerriden imalen akked yiniten i ttwalin deg tkerđa-ya, yeğġa-ten ad d-rren lwelha-nsen ugar i temsirt, aya iban-d deg tmeslayt-nsen, amedya:

- Yenna-d yiwen n unelmad: *ay tebha tkerđa-ya!*
- Yerra-d wayed:*d ssaħ mi tesa (les couleurs) initen*
- akken dayen i d-yenna wayed : *teččur d tugniwin* .

Syin akkin, imi tebda tselmadt tessegzay-d, inelmaden yenneqdae lħes-nsen deg tneyrit, fkan-d tamezzuyt-nsen smeħsisen anagar ssuť n tselmadt ara tselled, anect-a akk yeskanay-d takerđa n tanallayt tjebed-d s tidet lwelha n yinelmaden

Deg uttwel wis krađ " *inelmaden ttekkin deg temsirt* ", nufa-d akk inelmaden n tneyrit ttekkin deg temsirt imi ttaran-d yef yisteqsiyen n tselmadt, deg tazwara imi tebya tselmadt ad tebdu aseġzi n yinefkan yellan deg tkerđa tefka-asen-d asteqsi-ya: *d acu i tettwalim da?*, dya twehha s ufus-is i tkerđa tanallayt i yellan deg tfelwit. Inelmaden rran-d srid yef usteqsi-ya imi ttafaren taselmadt dya ur lethhin ara d lehdur d yimdukkal-nsen. Tiririt n tuget n yinelmaden tella-d akka:

- *Nettwali yiwet n tefyirt deg tlemmast, awalen daxel n lmurebae, kul awal yesea tugna sdat-s qqnen i win yellan deg tlemmast.*
- *Ttwaliy kul awal s yinit uħdes.*

Akken dayen, yal yiwen deg-sen d acu d tikti i d-yefka yef usentel n temsirt, dya ad d-nefk kra n yimediyaten yef wayen i d-nnan yinelmaden. Ad nezwir s yisteqsiyen i d-tefka tselmadt: *D acu i d tawennađt?*

Tiririyn n yinelmaden llant-d akka: *tawennađt d amkan anda nettidir.*

- *Dacu d timentelt tamezwarut i yessetwayayen tawennađt?*

Tiririyin n yinelmaden llant-d akka:

- *D amdan i yessetwayayen tawennađt s uťeyyer n lusex deg lqae.*
- *D amdan i yessetwayayen tawennađt s wayen i d-ixeddem.*

Deg wayen i d-yettuddun ad nwali imedyaten i d-fkan yinelmaden deg lawan n tikli n temsirt imi skanayen-d akken iwata atekki n yinelmaden deg temsirt.

S wakka deg tesleđt-a i nga i umatar-a, nufa-d allal n tkerđa tanallayt i jebbed-d nezzah lwelha n yinelmaden aya s txutert n yiferdisen i tla am tugniwin, initen, unuyen... imi jebden-d tamuylı n yinelmaden, yettağğa-ten ad rren dhen-nesn akken iwata yer temsirt, yetteawan-iten dayen deg usuddes n tektiwin-nsen, yerna teggar-iten ladya dixel n ulmad-nsen dya d wa i d azal ameqqran i tesa tkerđa tanallayt deg uselmed, akken i d-yenna Pengadilen Sembiring., « *Takerđa tanallayet tla tibuyar deg tmeğleyt n yinelmaden akken ad ttekin deg ulmad-sen* »*¹.

Dya nufa-d, allal-a yessishil yef yinelmaden akken ad ttekin deg wayen lemden imi takerđa tanallayt teslalay-d lebyi-nsen i tyuri, s wawal-nniđen tetteawan-iten ad bnun timusniwin s ufus-nsen.

1.3 Tasleđt n umatar wis krađ "timeğleyt n yinelmaden deg tneyrit"

Nessumer-d amatar-a, iwakken ad nwali ma takerđa tanallayet tgellu-d s lebyi n yinelmaden i tyuri d tmeğleyt-nsen dixel n tneyrit imi d anect-a i yetteawanen anelmad deg usnerni n tzemmar-is. Dayen ma yella tgellu-d s uskasi d unecraħ-nsen deg lawan n ulmad.

Deg tesleđt-a nessaweđ yer yigemmađ ara d-nessisen deg tfelwit i d-yettuddun:

*« L'utilisation de la carte heuristique est très avantageuse pour motiver les étudiants à être impliqués à l'apprentissage »

¹Pengadilen Sembiring., 2018 «enrichissement de vocabulaire en utilisant la carte heuristique», *Bahas*, vol 29, N°3, asb.264.

Amatar	Ittewlen	+	-	-/+	Tamawt
Timegleyt n yinelmaden deg tneyrit	-Iferdisen yettilin deg tkerđa tanallayt: initen, tugniwin, unuyen tteawanen deg ulmad.	x			-Seg tannayt-a, nufa-d iferdisen-a εawnen inelmaden deg ulmad imi ssishilen fell-asen tigzi n wawalen.
	-Inelmaden refden-d ifassen akken ad d-rren yef yisteqsiyen.	x			-Inelmaden akken ma llan deg tneyrit, refden-d ifassen-sen.
	-Inelmaden akken ma llan ttekkine deg uskasi daxel n tneyrit.	x			-Yella-d uskasi s wařas deg tneyrit acku yella-d umbaddal n tektiwin gar tselmadt d yinelmaden, akked yinelmaden gar-asen yef usentel n twennađt.
	-Yella unecraħ deg tneyrit.	x			-Inelmaden akken ma llan necraħen deg temsirt-a, iejeb-asen lħal i ulmad, yella-d ucmummeħ deg tneyrit.

Tafelwit uřun 4: Tiririt yef umatar wis krađ "timegleyt n yinelmaden deg tneyrit".

Tafelwit-a teskanay-d tiririt i d-negmer seg tsastant i nexdem yef tmegeleyt n yinelmaden deg tneyrit.

Deg uttwel-a amezwaru, *"iferdisen yettilin deg tkerđa tanallayt tugniwin, initen, unuyen tteawanen deg ulmad"*, ilmend n tesleđt i nga i uttwel-a seg wayen i nwala deg tneyrit nufa-d akk iferdisen-a tugniwin, initen... i nesseqdec deg tkerđa tanallayt yerzan tamsirt-a n umawal εawnen s wařas inelmaden deg ulmad. Tamezwarut slulen-d timegleyt akked lebyi n yinelmaden i tyuri imi rran-d lwelha-nsen akken iwata yer temsirt, tin yur-ssishilen fell- tigzi n yinumak n wawalen ladya imaynuten, akken dayen i εawnent inelmaden ad kkin akken ma llan deg temsirt akked lebni n tmussniwin-nsen, rnu yur-sumata allal-a yefka-asen-d anezwu anaraf i ulmad imi yessuffey-iten seg tegnit-nni taqburt i llan ywaren yes-s i yellan d tira kan n wawalen. S wakka nessawed nufa-d

iferdisen-a tugniwin, initen, unuŷen sean azal deg usishel n ulmad i yinelmaden, dya dayen i d-nsessisen yakan deg uħric azrayan.

Ihi, seg tesleđt n uttwel-a nezmer ad d-nini takerđa tanallayt tetteawan inelmaden deg ulmad imi tessishil fell-asen tigzi, akken dayen i nufa allal-a yessishil ulamma yef uselmad asiweđ n yizen d tmussniwin s shala i yinelmaden-is.

Deg uttwel wis sin'' *inelmaden refden-d ifassen-sen akken ad d-rren yef yisteqsiyen*'. Ilmend n wayen i nezra deg tneyrit, nufa-d inelmaden akken ma llan refden-d ifassen-nsen, ulac wid yessethin ney yekukran akken ad d-yerfed afus-is imi sean lebyi d timegleyt i ulmad, ilmend n waya ad naf Rolland Viau., yenna-d: « *Akken ad tlemdeđ rnu ad tsmurseđ, ur ak-laqent ara tzemmar kan, ilaq dayen ad tiliđ d ameglay*»¹. Ihi timegleyt d tawliit tamezwarut i ulmad imi ulac almad war timegleyt acku anelmad yesean timegleyt, iseėeu lebyi ad yelmed timussniwin timaynutin. Tin ħur-s, imi inelmaden sean tiririt yef yisteqsiyen aya iban-d deg tikli n temsirt d tririyin-nsen yef yisteqsiyen i d-tettak tselmadt.

Amedya:

D acu tettwalim deg tugna i d-yemmalen awal tifesniwin?

Tiririyin n yinelmaden llant-d akka:

- *Ttwaliy (darađat lħarara) yiwet teħma mliħ tayed d asemmiđ mliħ.*
- *Ttwaliy (la tempėrate) yiwet tuli tayed tuħer.*

Imi i d-fkan yinelmaden tiririyin-a, tenna-asen tselmadt ihi *drađat lħarara* s tmaziyt neqqar-as tifesniwin syin, iwakken ad twali tselmadt ma gzan yinelmaden anamek n wawal tifesniwin tefka-yasen-d asteqsi-ya : *a yinelmaden imi ad alint tifesniwin n uzyal d acu iderrun deg twennađt?*

Tiririyin n yinelmaden llant-d akka :

- *Ittili uyamac, ttematen yimyan.*
- *Lqaė tettyara.*

* « Pour faire des apprentissages et réussir, il faut plus que des capacités – il faut aussi être motivé. »

¹ Catherine Frėchette-Simard, Plante, I., Dubeau, A. et Duchesne, S, 2018, La motivation scolaire et ses thėories actuelles : une recension thėorique, yemħer ass 27/06/2022, deg użetħa tansa-s : <https://www.reseaeuissitemontreal.ca/la-motivation-scolaire-article/>

- *Abeħri ixneq, di nesguma inesnufes.*
- *Neqqsen waman deg yiybula d yisaffen.*

Akken dayen id-terna asteqsi-ya : imi ad ilint tfesniwin uđrent d acu iderrun?

Tiririyin n yinelmaden llant-d akka :

- *Asmi ad ilint tfesniwin udrent yekkat-d uyebbar.*
- *Ittesmiđ lħal.*
- *Ikkat-d udfel.*

Tuget n tririyin n yinelmaden sehħant, imi gzan d acu i d-temmal tugna-nni n tfesniwin, tikti tewweđ-iten akken iwata rnu ħur-s gzan anamek n wawal aya iban-d seg tririyin-nsen. Aya yemmal-d azal n tugna deg usishel tegzi n yinumak n wawalen.

Anect-a dayen yeskanay-d takerđa tanallayt d allal yelhan nezzeh iwakken ad yegzu unelmad ugar tamsirt, ad yesnerni tizemmar-is n umawal ladya deg wayen yerzan almad n wawalen imaynuten .

Deg wayen yerzan tasleđt n uttwel wis krađ" **inelmaden akken ma llan ttekin deg uskasi daxel n tneyrit "**, nufa-d deg tneyrit yella-d waņas n uskasi imi yella umbaddal n tektiwin ħef usentel n twennađt ama gar uselmad d yinelmaden neħ gar yinelmaden. Dya imi i d-tessegzay tselmadt inelmaden ħef wayen i d-tewwi tkerđa, inelmaden takken-d tiririyin-nsen s usenfali n tektiwin-nsen, gan assay gar tkerđa tanallayt d usentel n twennađt. Anect-a iban-d deg tiririyin-nsen ħef yisteqsiyen n tselmadt amdya ħef yisteqsiyen-a : *S wacu i nettdurru tawennađt-nney?*

Gar tririyin i d-fkan yinelmaden ad d-nebder:

- *luzinat d tkerrusin ttđurrunt tawennađt s dextan i d-xedmen.*
- *Mi di tteyiređ lusex deg lqaε.*
- *aħraq n tezgi isettwayay anezwu n twennađt.*

Akken dayen i d-yefka yiwen n unelmad asteqsi-ya: d *acu zeεma imyan, yerra-as-d umdakkal-is: imyan dayen id-iyemmin am leħcic, tiseđwa*

Imi ttmeslayen yinelmaden akked tselmadt-sen sumata ħef usentel-a, yenna-d yiwen n unelmad: *mi tella kuruna tqεεεd (la couche d'ozone) acku imdanen qqimen deg uxxam ulac menhu da tt-isetway.*

Ihi, anect-a yeskanay-d inelmaden ttekkın deg temsirt-a, aya s tallelt n tkerđa tanallayt imi teawen inelmaden akken ad ttekkın akken ilaq deg ulmad-nsen.

Deg tesleđt n uttwel aneggaru "*yella-d unecraħ deg tneyrit*". Ilmend n wayen i d-negmer seg tneyrit yef uttwel-a, nufa-d anezwu n tneyrit yeččur d anecreħ d tumert n yinelmaden, anect-a iban-d deg lehħu n temsirt. Anezwu-ya yeslul-d timegleyt akked lebyi n yinelmaden i tyuri dayen i nwala deg tannayt imi yal yiwen deg-sen yeğseb ad d-yefk tiririt netta i d amenzu. Akken dayen, i ttemyezwaren anwa ara ad d-yekren yer tfelwit akken ad d-iyer awalen yellan deg tkerđa tanallayt.

S wakka nufa-d, asemres n wallal n tkerđa tanallayt deg uselmed n temsirt n umawal ixeddem-d anecraħ deg tneyrit , yeslalay-d tagnit, addad yelhan akked tađsa d ucmummeh n yinelmaden, sumata aseqdec-is yettawi inelmaden ad seun timegleyt d lebyi i ulmad akked usnerni n tzemmar-nsen timawalanin.

1.4 Tasleđt n umatar wis ukkuz "tigzi n temsirt syur yinelmaden"

Deg wayen yerzan amatar-a, nessumer-it-id iwakken ad nzer ma yella takerđa tanallayt tessishil, tassisfus yef yinelmaden tigzi n yinumak n wawalen, rnu yur-s ad nzer ma yella ssawđen ad gzun asentel yef wacu i d-yewwi usentel n temsirt " iger n umawal n twennađt ".

Nufa-d:

Amatar	Ittewlen	+	-	+/-	Tamawt
Tigzi n temsirt syur yinelmaden.	-Takerđa tanallayt teawen inelmaden ad gzun inumak n wawalen	X			-Inelmaden gzan inumak n wawalen s tallelt n tkerđa tanallayet acku smersen awalen-nni deg tefyar syur-sen yerna tifyar-nni d tid yesean anamek.
	-Inelmaden gzan s shala tamsirt n umawal s wallal n tkerđa tanallayt	X			-Takerđa tanallayt tessishil, tessifsus yef yinelmaden tigzi n temsirt n umawal imi ur tewwi ara tselmadt-nni atas n wakud deg usegzi acku gzan s shala akked lemyawla.

Tafelwit uđđun 5: Tiririt yef umatar wis ukkuđ "tigzi n temsirt syur yinelmaden".

Tafelwit-a, teskanay-d tiririt i d-negmer seg tsastant i nga yef "**tigzi n temsirt syur yinelmaden**".

Igemmađ iyer nessawed deg uttwel amezwaru " *takerđa tanallayt teawen inelmaden ad gzun inumak n wawalen* ", nufa-d atas n n yinelmaden i yegzan inumak n wawalen s tallelt n tkerđa tanallayt imi llan kra n wawalen ur gđđan ara taselmadt-nsen ad asen-tessegzi am *tizgi, issafen, tala, ideflawen*...acku iferdisen iyef tebna tkerđa tanallayt am tugniwin, initen...eeawnen inelmaden deg tegzi n yinumak n wawalen-a ladya imaynuten am wawal ayurar, dya imi walan tugna it-id-yemmalen akked yinit-ines d aqahwi srid nnan-d:

- *Lqae iqqur*
- *Lqae tjaf*
- *Akal ikkaw*

Akken dayen, awal *iybula* srid gzan anamek-is imi inelmaden nnan-d: *iybula d aman id-yettasen seg yidurar lealin i tisit*. Aya ilmend n wayen ttwalin deg tugna it-id-yemmalen. Llan kra n yinelmaden nnan-d: *nekkni neqqar-as leenser*. Aya yeskanay-d inelmaden gzan awalen-a akked yinumak-nsen, rnu yur-s asteqsi i d-tefka tselmadt deg taggara n temsirt yesken-d tigzi-nsen i temsirt.

Asteqsi-ya d wa: *a yinelmaden tfehmem tamsirt n wass-a?*

Inelmaden rran-d: *nefhem a massa.*

Ula d kra n yinelmaden sutren seg tselmadt-nsen ad ten-tesyaray yal ass s wallal-a yaş ulamma d timsirin-nniđen.

- *Lukan a massa ayan-tessegrayen anka ula d timsirin-nniđen bac inefhem dqiqa am ass-a.*

Akken dayen i d-yesbiyyen uskasi i xedmen yinelmaden akked tselmadt d uttekkin-nsen deg temsirt-a, tigzi-nsen i umawal i yran s wallal-a. Anect-a yeskanay-d dayen azal n tkerđa tanallayt d yiferdisen-is sumata *tugniwin, initen, unuyen akked talya n lebni-isen i umawal-a*, deg lemeiwna n yinelmaden deg tegzi n umawal i yran yef usentel n twennadt, dya tigzi tettuneħsab d tawtilt i yesean azal d temlilt d tameqqrant deg lebni n tmussniwin acku ma ulac tigzi ur nezmir ara ad d-nebdu tizemmar akked tmussniwin timaynutin.

Deg tesleđt n uttwel aneggaru n umatar-a " **inelmaden gzan s shala tamsirt n umawal s wallal n tkerđa tanallayt** ", nufa-d allal-a yessishel, yessifsus yef yinelmaden tigzi n temsirt, imi ur i d-mugren ara uguren deg tegzi n yinumak n wawalen i d-tessegza tselmadt-nsen s wallal-a amedya awal *ayamac* akked wawal *azyal* d sin n wawalen i yettmcabin deg unamek imi deg sin yid-sen mmalen-d lħuman maca inelmaden ssawden s wallal-a ad ssemgirden gar-asen acku gzan inumak-nsen. Am wakken dayen i nwala ur tettif ara tselmadt atas n wakud deg usegzi n yinumak n wawalen, inelmaden gzan-ten s lemyiwla.

Ihi anect-a yeskanay-d, asemres n usalel n tkerđa tanallayt deg uselmed n umawal yessishil tigzi i yinelmaden, am wakken dayen i tettağğa tamsirt ad telħu s sshala, d taxfaft yef yinelmaden.

Tasemlilt

S yigemmad iyer nessawed s tesleđt n tfelwit-a n tannayt i nga deg unadi-nney yef tmegleyt s usemres n wallal n tkerđa tanallayt, nessawed ad d-naf allal-a s tidet igellu-d s tmegleyt i yinelmaden daxel n tneyrit, yeslul-d lebyi-nsen i ulmad, yessishil fell-asen tigzi

n wayen lemden yerna yeġġa-ten ad kkin deg temsirt, akken dayen i d-yegla s unecreħ dixel n tneyrit dya dayen i yeġġan almad ad yili d asehlan, d afsas yeħ yinelmaden.

Ilmend n wanect-a nessaweđ nerra-d yeħ turda n umahil-a, imi nufa s tidet takerda tanallayt d allal i yetteawanen inelmaden deg usnerni n tzemmar-nsen timawalanin, imi tgellud s tmegleyt d unecreħ akked lebyi n yinelmaden i tyuri akked ulmad.

Taggrayt

Seg yigemmad n tesleđt n tfelwit n wannay i nga i temsirt n umawal i yettwaslemden s wallal n tkerđa tanallayt, nessawed nufa-d timegleyt tella ugar dixel n tneyrit s useqdec n tkerđa tanallayt imi tuget n yinelmaden ttekin deg tikli d lebni n temsirt, akken dayen i d-yella unecređ s wađas gar yinelmaden d tselmadt-nsen.

Taggrayt tamatut

Asentel n tezrawt-a yewwi-d yef useqdec n wallal n tkerða tanallayt deg uselmed n temsirt n umawal deg uyerbaz amenzu aswir wis semmus. Iswi-nney deg umahil-a, ad nwali azal n tkerða tanallayt deg usnerti n tzemmar timawalanin n yinelmaden. Agnu iyef yezzi leqdic-a d wa :

Ma tkerða tanallayt tetteawan inelmaden deg usnerti n tzemmar-nsen timawalanin?

Iwakken ad d-nerr yef usteqsi-ya agejdan, nessumer-d turda-a :

- Takerða tanallayt txeddem-d timegleyt deg tneyrit imi deg-s ttilin izamulen, initen, tugniwin, unuyen... dayen i d-ijebden inelmaden ugar yer temsirt, akken dayen i tetteawan inelmaden deg usnerti n tzemmar-nsen timawalanin imi tessishil fell-asen tigzi d cfawat n wawalen i lemden d yinumak-nsen.

Iwakken ad d-nerr yef ugnu akked turda-a, nga tannayt deg tneyrit i yinelmaden n uswir wis semmus ayerbaz amenzu.

I usidet n turda n umahil-a, nexdem tannayt deg tneyrit deg lawan n useqdec n wallal n tkerða tanallayt iwakken ad nzer addad n yinelmaden, ma allal-a ijebbed-d lwelha n yinelmaden d lebyi-nsen yer tyuri d ulmad, rnu yur-s ma igellu-d s tmegeleyt-nsen dixel n tneyrit, akken dayen ad nzer ma takerða n wallay teawen inelmaden deg usnerti n tzemmar-nsen timawalanin, dya s yigemmad iyer newwed nufa-d, inelmaden ssawden s wallal-a ad snernin tizemmar-nsen timawalanin, teawen-iten deg tegzi d cfawat n wawalen i yran d yinumak-nsen, anect-a s yiferdisen itla, gar-asen tugniwin, initen, unuyen ssifsusen ugar almad n umawal-a. Mi nga tasledt i yigemmad n tfelwit n tannayt i d-negmer seg tneyrit, nessawed deg taggara ad nwali anezwu n tneyri yeččur d timegleyt d unecreh, inelmaden iejeb-asen ulmad n umawal s tkerða tanallayt. Yef waya turda tamezwarut i d-nefka deg tezrawt-a twata.

S wakka, nessawed ad d-nerr yef usteqsi agejdan n tezrawt-a yef tkerða tanallayt deg lemewna n yinelmaden deg usnerti n tzemmar-nsen timawalanin deg uyerbaz amenzu aswir wis semmus.

Ihi, takerða tanallayt d allal yelhan i uselmed n temsirt n umawal imi nufa-t d allal i d-ijebden lwelha n yinelmaden yer temsirt, igellu-d s tmegeleyt-nsen deg tneyrit, rnu yur-s

teslalay-d lebyi n yinelmaden i ulmad, tettağğa-ten ad ttekkim deg lebni n tmussniwin-nsen, akken dayen i nufa iferdisen iyef tebna tkerda-ya am tugniwin, initen, unuyen d talya n lebni-ines i tektiwin tetteawan nezzah inelmaden deg tigzi n wawalen i lemden d cfawat yef yinumak-nsen lada awalen imaynuten. Yef waya nettwali allal-a yelha ma ssemrasen-t yiselmaden deg uselmed ama deg temsirt n umawal ney deg temsirin-nniden imi d allal ara asen-yessishilen asiwed n yizen i yinelmaden akken dyen ara yessishil yef yinelmaden almad sumata.

Rnu yer wannect-a, ilmend n wayen i n wala deg tneyrit nufa allal n tkerda tanallayt yetteawan dayen aselmad deg uselhu n temsirt-is n umawal imi iferdisen-a tugniwin, initen, unuyen eeawnen-it deg usiwed n tmussniwin s lemyiwla war ugur, ssishilen fell-as asegi imi inelmaden gzan s shala ayen yebya ad yini uselmad, wden yer yiswan n temsirt war ma yenneetab, aya iban-d seg tririyin n yinelmaden yef yisteqsiyen n uselmad akked uttekki-nsen deg lehhu n temsirt, inelmaden gzan iman-nsen ayen ttwalin deg tkerda n wallay.

Iybula

Idlisen

- Buzan T akked Buzan B., 2012, *Mind map dessine-moi l'intelligence*, éd d'organisation.
- Buzan T akked Buzan B., 2003, *Mind map dessine-moi l'intelligence*, éd d'organisation.
- J-L.Deladière, F.Le Bihan akked P.Mongin, D.Rebaud., 2007, *Organisez vos idées avec le mind mapping*, Dunod, 2eme édition Paris.

Imagraden

- Anik Lessard-Ruthier, 2013, « Les cartes mentales...ou l'arte de favoriser la réussite des élèves en se simplifiant la vie», deg *les dossiers carrefour éducation infobourg*, Asb.1-14.
- Cassaingne Claine., 2013, «Les cartes mentale», deg *Cahiers pédagogique*, №508, Asb, 1-13.
- Kremer Florence et Thierry Verstraete., 2014, «La carte mentale pour favoriser l'apprentissage du business model et susciter la créativité des apprenants» *Revue internationale P.M.E*, 27(1), Asb.65-97.
- Longeon Thomas., 2013, «Les carte heuristiques au service d'une pédagogie active», *CIREL-Centre interuniversitaire de recherche en education de Lille-ULR4354*, Asb.1-6
- Mokadem Myriam., 2016, «La motivation comme facteur de réussite scolaire» *Education..dumas-01430237*, Asb,1.37
- Pengadilen Sembiring., 2018, «Enrichissement de vocabulaire en utilisant la carte heuristique», deg *Bahas*, vol29, №3, Asb.263-268.
- Stéphane Martineau., 2004, «l'observation en situation : enjeux, possibilités et limites», Actes du colloque l'instrumentation dans la collecte des données, *UQTR*, Asb.5-17.
- Tong Yang ., 2019, «La carte mentale, un outil didactique d'aide à la mémorisation pour l'enseignement/apprentissage de lexique» RJC2017-20èmes Rencontres des jeunes chercheurs en sciences du langage, deg *Paris, France*, Asb.2-22.
- Tong Yang et Cavalla Cristelle., 2019, «L'enseignement du lexique culinaire auprès des apprenants de niveau A2», *revue redillet (revista digital internacional de lexicologia, lexicofia y terminologia) Cordoba(Argentine)*, № 2, Asb.1-18.

Isegzawalen :

- *Larousse*, 1997, Dictionnaire de français, Larousse-Bordas.

-Imagraden n uzeṭṭa :

- Caroline Fournier, 2016, Apprendre *et s'organiser grâce aux cartes mentales*, yemzer ass 18/02/2022 deg uzeṭṭa tansa-s:

<https://www.pluradys.org/wp-content/uploads/2016/01/mind-mapping-24-10-16-.pdf>

- Catherine Fréchette-Simard, Plante, I., Dubeau, A. et Duchesne, S, 2018, *La motivation scolaire et ses théories actuelles : une recension théorique*, yemzer ass 27/06/2022, deg uzeṭṭa tansa-s : <https://www.researeussitemontreal.ca/la-motivation-scolaire-article/>.

- Carlier Laetitia,..., *Carte mentale: outil pédagogique*, yemzer ass 18/01/2022 deg uzeṭṭa tansa-s: [https://ien-montpellier-nord.ac-](https://ien-montpellier-nord.ac-montpellier.fr/IMG/pdf/La_carte_mentale_outil_pedagogique.pdf)

[montpellier.fr/IMG/pdf/La carte mentale outil pedagogique.pdf](https://ien-montpellier-nord.ac-montpellier.fr/IMG/pdf/La_carte_mentale_outil_pedagogique.pdf)

-Elise Chomienne, 2011, *Carte heuristique*, yemzer ass 20/02/2022 deg uzeṭṭa tansa-s:

<http://weburfist.univ-bordeaux.fr/wp-content/uploads/2013/12/heuristique1.pdf>

-Jean-Pierre Leac, *La carte heuristique ou mind-map-les cahiers de l'innovation*, yemzer ass n 18/12/2021, deg uzeṭṭa tansa-s :

<https://www.google.com/url?esrc=s&q=&rct=j&sa=U&url=https://www.lescahiersdelinnovation.com/la-carte-heuristique-ou-mind-map/&ved=2ahUKEwjz-s6P-Pb0AhVTAWMBHUEpAgUQFXoECAQQBA&usg=AOvVaw0Do1yhT0TdJuJg5fxbIgOQ>

- Jennifer Gaskin, MAR 23, 2022, *Plus de 15 exemples de Mind Map pour organiser votre équipe et inspirer de nouvelles idées*, yemzer ass 29/06/2022, deg uzeṭṭa tansa-s :

<https://fr.venngage.com/blog/mind-map-exemples/>

-Lafaye S, 2012, Présentation des carte heuristique, yemzer ass 28/01/2022, deg uzeṭṭa tansa-s [https://eed.ac-versailles.fr/IMG/pdf/Les cartes heuristiques Final.pdf](https://eed.ac-versailles.fr/IMG/pdf/Les_cartes_heuristiques_Final.pdf).

- La petit larousse, yemzer ass 26/01/2022 deg uzeṭṭa tansa-s:

<http://www.aucourt-technologie.com/Doc/13.-carte-heuristique.pdf>

- Michéle Drechsler., 2010, *La carte mentale au service des apprentissages*, yemzer ass 22/02/2022, deg uzeṭṭa tansa-s:

<http://groupes-premier-degre-36.tice.ac-orleans-tours.fr/eva/sites/groupes-premier-degre-36/IMG/pdf/CarteMentaleServiceApprentissages1.pdf>.

- Narce Isabelle, 2013, S'intier à *la carte heuristique avec "le nouvel édito"*, yemzer ass 1/07/2022, deg uzeṭṭa tansa-s :

http://www.edelsa.com/Aula/Edito/resourcesWeb/carte_heuristique.pdf

-yemzer ass 29/01/2022 deg uzeṭṭa tansas:

<https://inspe.ubourgogne.fr/wpcontent/uploads/2016/03/M%C3%A9mo->

[La_carte_conceptuelle_un_outil_stimulant_pour_lenseignement_lapprentissage_et_l%C3%A9valuation.pdf](https://inspe.ubourgogne.fr/wpcontent/uploads/2016/03/M%C3%A9mo-La_carte_conceptuelle_un_outil_stimulant_pour_lenseignement_lapprentissage_et_l%C3%A9valuation.pdf).

Tijentad

Umuy n tjenţad:

Tijenţedt 1: Umuy n tkerđiwin

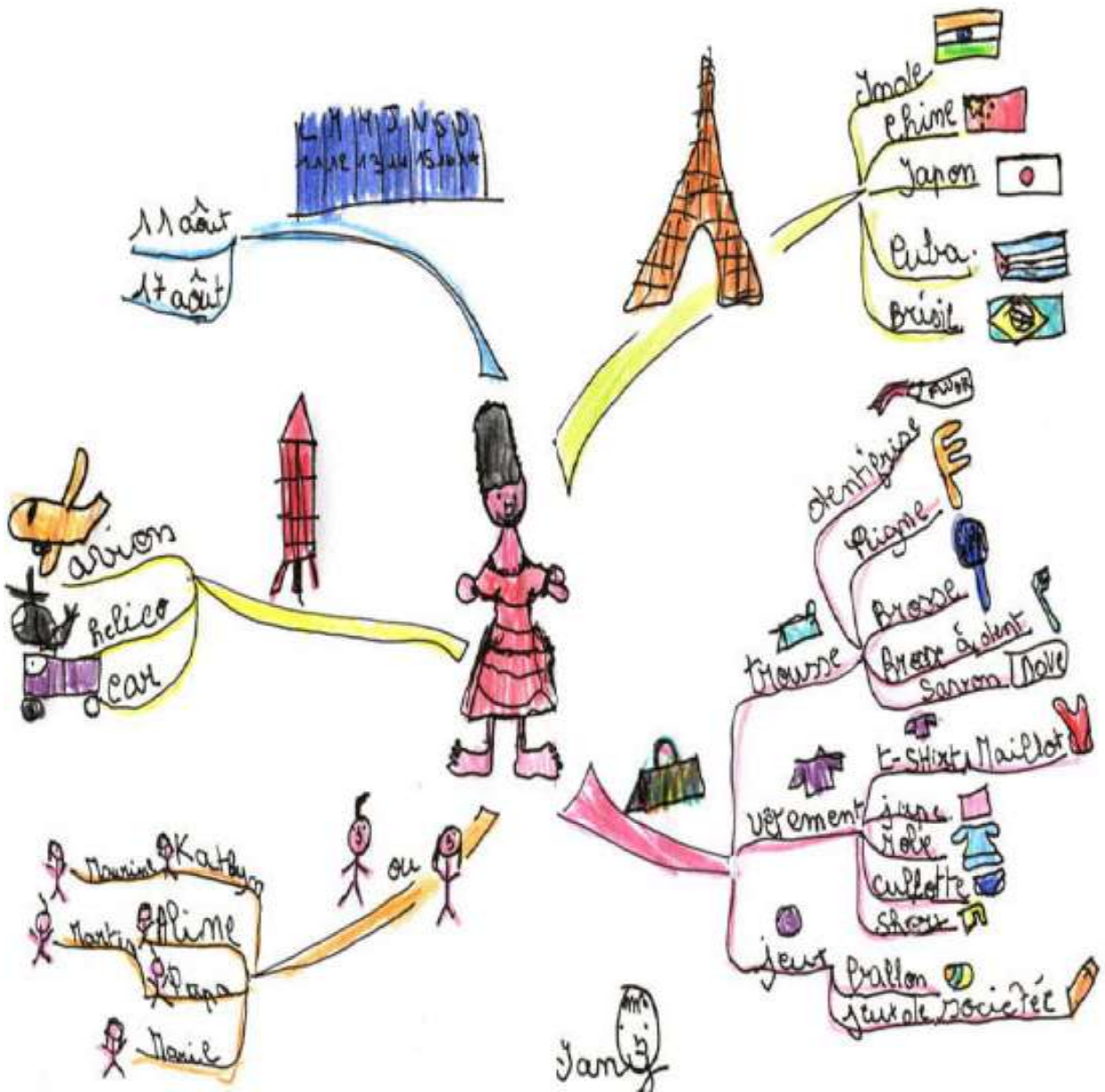
Takerđa uţţun 1: Aheggi n yiwen n yinig syur yiwet n teqcict n tza n yiseggasen deg leemer-is	18
Takerđa uţţun 2: teskanay-d "imqimen ilelliyen"	20
Takerđa uţţun 3: amawal n wallalen imensiyen	21
Takerđa uţţun 4: takerđa temmug s wallal n useyzan, tewwid yef uktawal n wawal ayersiw .	22
Takerđa uţţun 5: takerđa tebna s tugniwin	24
Takerđa uţţun 6: asissen n tbuyar n tkerđa tanallayt	28
Takerđa uţţun 7: amawal n uyerbaz	31
Takerđa uţţun 8: Takerđa tanallayt i nessemres deg temsirt n umawal.....	39

Tijenţedt 2: Umuy n tfelwiyin.

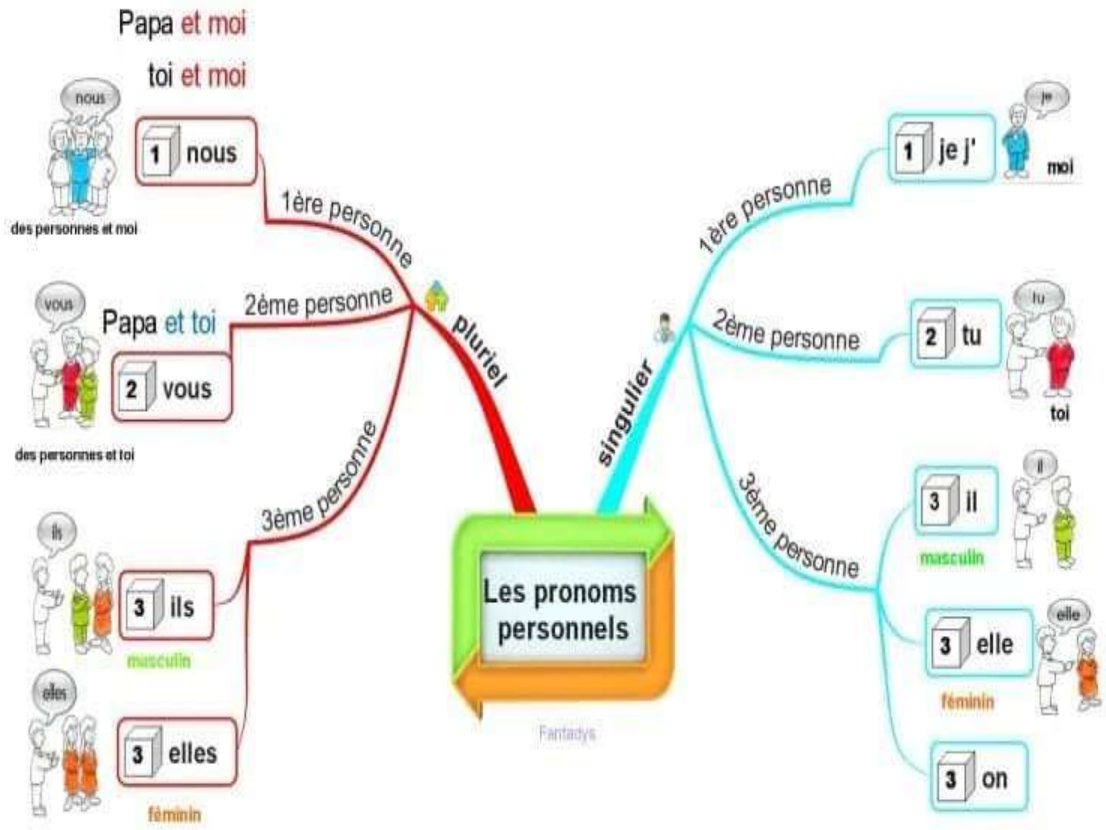
Tafelwit uţţun 1: Tafelwit n tannayt i nesseqdec deg temsirt n umawal i d-yewwin yef usentel n twennađt.....	37
Tafelwit uţţun 2: tiririt yef umatar amezwaru"addad n yinelmaden deg tneyrit.	47
Tafelwit uţţun 3: Tiririt yef umatar"tikli n yinelmaden deg lawan n useqdec n tkerđa.	48
Tafelwit uţţun 4: Tiririt yef umatar wis krađ "timegleyt n yinelmaden deg tneyrit ".	51
Tafelwit uţţun 5: Tiririt yef umatar wis ukkuz "tigzi n temsirt syur yinelmaden ".	55

Tijentađ

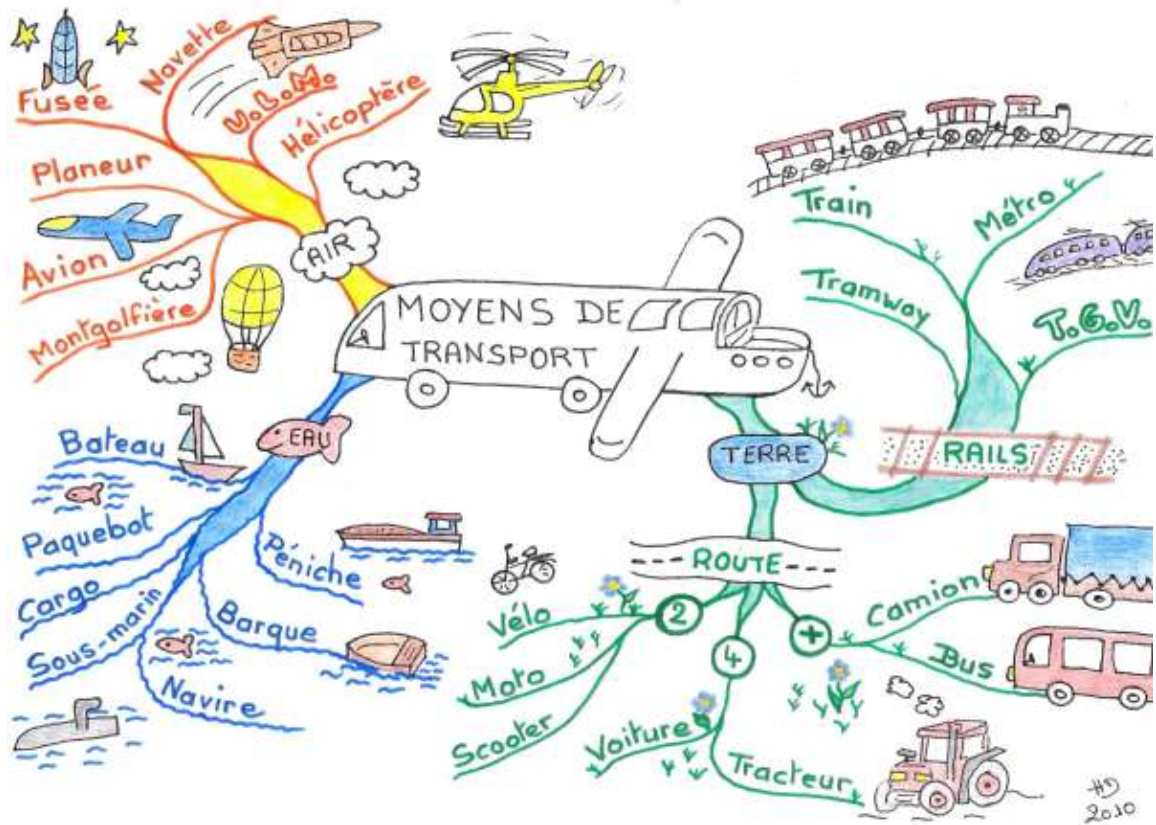
Tijentađt 1: Umuy n tkerđiwin



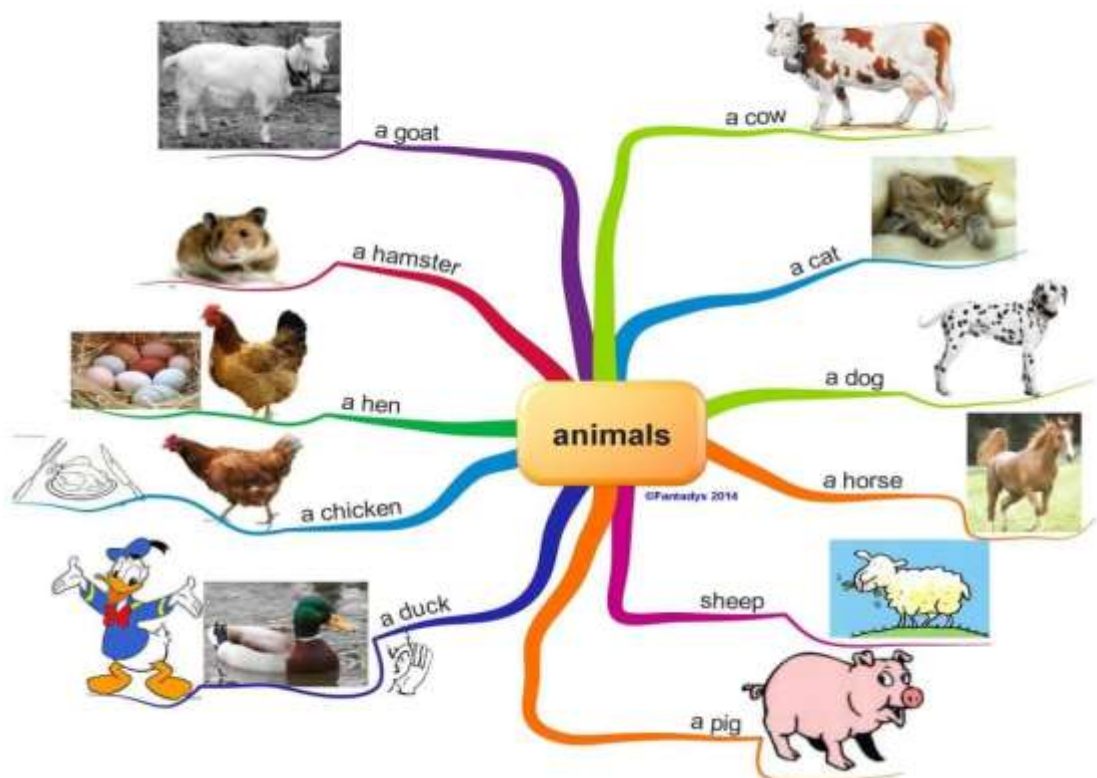
Takerđa uđun 1: Ahoggi n yiwen n yinig syur yiwet n teqciť n tza n yiseggasen deg lećmer-is.



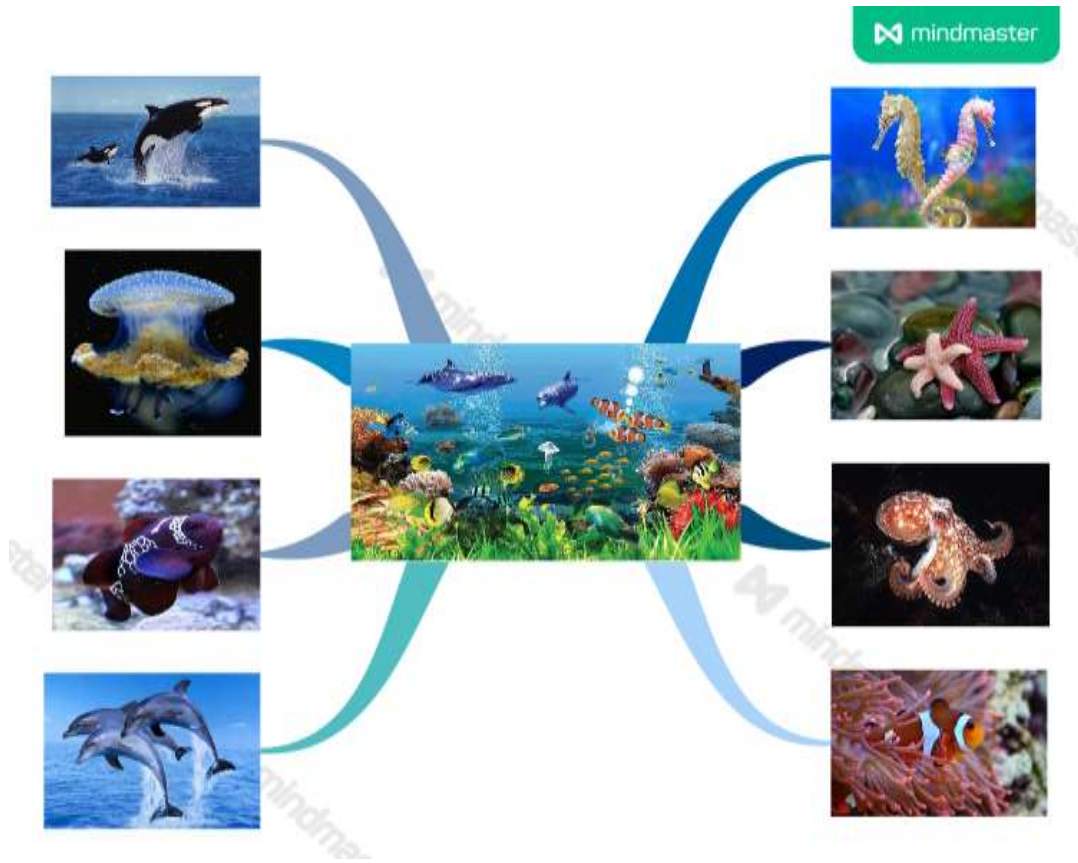
Takerđa uđun 2:teskanay-d "imqimen ilellyen"



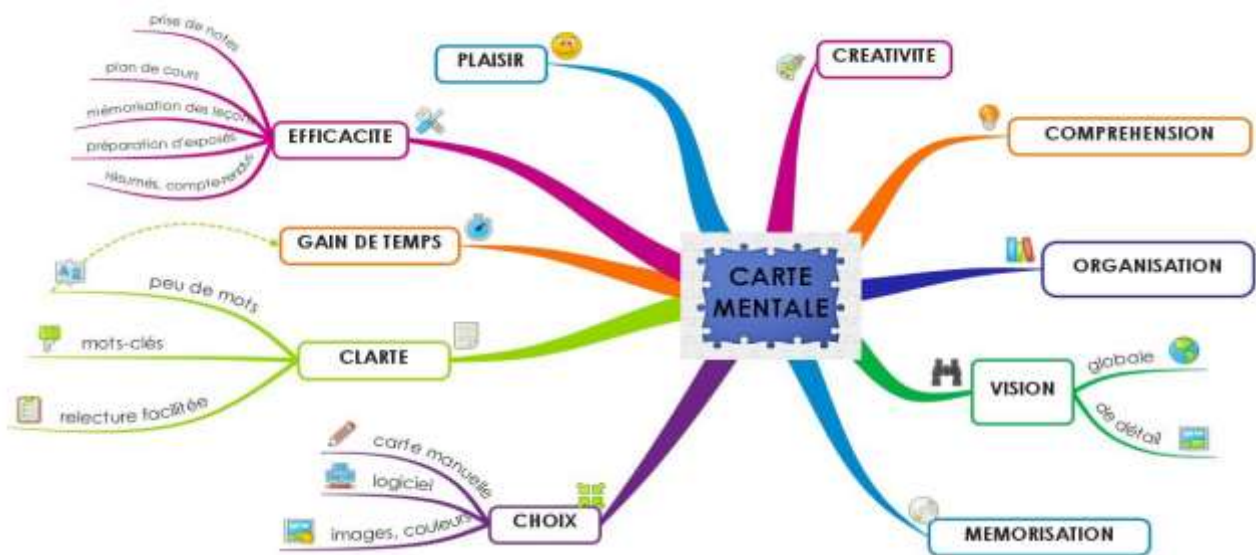
Takerđa uđtun 3: amawal n wallalen imensiyen.



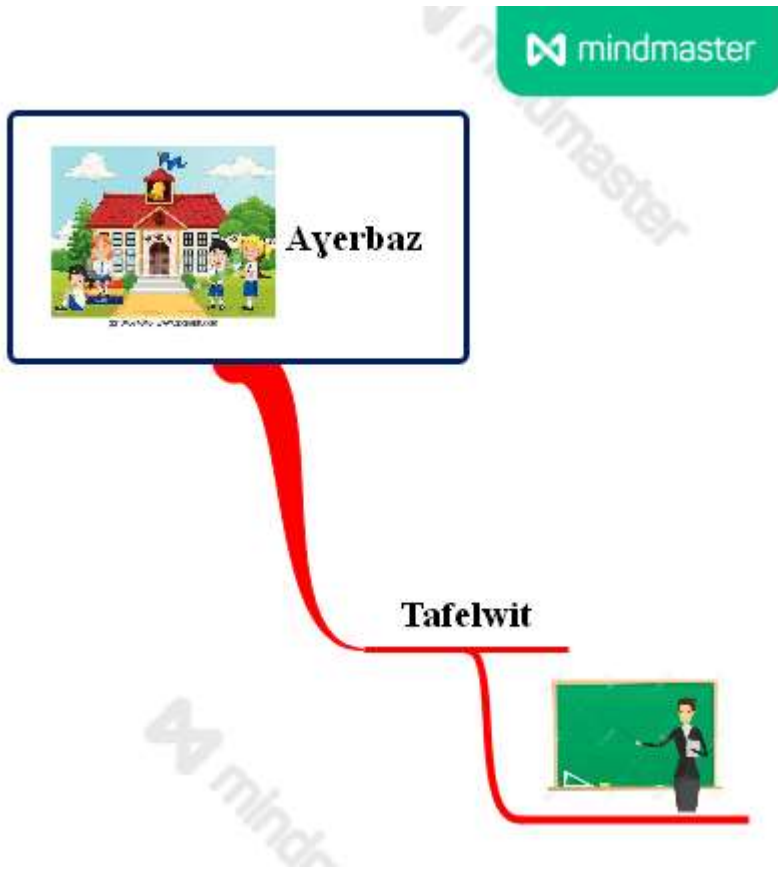
Takerđa uđtun 4: takerđa temmug s wallal n useyan, tewwid yef uktawal n wawal ayersiw.



Takerđa uđun 5: takerđa tebna s tugniwin.



Takerđa uđun 6: asissen n tbuyar n tkerđa tanallajt.



Takerda uttun 7: amawal n uyerbaz.



Takerça uñun 8: Takerça tanallayt i nessemres deg temsirt n umawal.

Tijenţeqđt 2: Umuy n tfelwiyin

Ayerbaz : Azemz: Tamert: Tamsirt: Tineyrit:	Asenfar Tagzemt : Iswi n temsirt : Allalen yettwasmersen deg tneyrit :
--	---

Imataren	Ittewlen	(+)	(-)	(+/-)	Tamawt
Addad n yinelmaden deg tneyrit	-inelmaden ssusmen. -inelmaden sean timegleyt ad yren				
Tikli n yinelmaden deg lawan n useqdec n tkerđa	-Inelmaden smeħsisen, rran-d lwelha-sen yer temsirt . -Takerđa tanallayet tejbed-d lwelha n yinelmaden ad yren . -Inelmaden ttekin deg temsirt.				
Timegleyt n yinelmaden deg tneyrit	-Iferdisen yettilin deg tkerđa tanallayet: tugniwin, unuyen d yiniten tteawanen deg ulmad. -Inelmaden refden-d ifassen-n sen akken ad d-rren yef yisteqsiyen -Inelmaden akken ma llan ttekin deg uskasi daxel n tneyrit -Yella unecreħ deg tneyrit				
Tigzi n temsirt syur yinelmaden	-Takerđa tanallayet teawen inelmaden ad gzun inumak n wawalen -Inelmaden gzan s shala tamsirt n umawal s wallal n tkerđa tanalayt				

Tafelwit uđđun 1: Tafelwit n tannayt i nesseqdec deg temsirt n umawal i d-yewwin yef usentel n twen

Tijentađ

<p>Ayerbaz : Amezwaru aswir wis semmus.</p> <p>Azemz: Aram 10 mayyu 2022</p> <p>Tamert: 45 min</p> <p>Tamsirt: Amawal n twennađt</p> <p>Tineyrit: 01</p>	<p>Asenfar 04: Aseh̃biber d umesten n twennađt.</p> <p>Tagzemt 01: Asaki n yimdanen ƣer yimihan n twennađt.</p> <p>Iswi n temsirt : Anelmad ad yakez awalen i d-yeskanayen tawennađt. Anelmad ad yegzu awalen-a Anelmad ad yesbayer amawal-is, ad ten-yesemres deg ufares s tira.</p> <p>Allalen yettwasmersen deg tneyrit : Tafelwit, takerđa n wallay.</p>
---	--

Imataren	Ittewlen	(+)	(-)	(+/-)	Tamawt
Addad n yinelmaden deg tneyrit	-inelmaden ssusmen. -inelmaden sean timegleyt ad ƣren	X X			/ - Inelmaden ttnadin d acu ara ad ƣren ass-nni.
Tikli n yinelmaden deg lawan n useqdec n tkerđa	-Inelmaden smeħsisen, rran-d lwelha-sen ƣer temsirt . -Takerđa tanallayt tejbéd-d lwelha n yinelmaden ad ƣren . -Inelmaden ttekkín deg temsirt.	X X X			-Imi zran tamsirt-nsen ad tili s tkerđa tanallayt inelmaden akken ma llan rran-d lwelha-nsen smeħsisen i temsirt. -Deg tneyrit ulac sdaε, inelmaden rran-d lwelha-nsen s tsusmi. -Akk inelmaden bya ad d-fken tiktiwin i seān ƣef usentel n temsirt-nni i ƣƣaren.
Timegleyt n yinelmaden deg tneyrit	-Iferdisen yettilin deg tkerđa tanallayt: tugniwin, unuyen d yiníten tteawanen deg ulmad.	X			-Seg tannayt-a, nufa-d iferdisen-a εawnen inelmaden deg ulmad imi ssishilen fell-assen tigzi n wawalen.

Tijentad

	<p>-Inelmaden refden-d ifassen-nsen akken ad d-rren yef yisteqsiyen</p> <p>-Inelmaden akken ma llan ttekkim deg uskasi dixel n tneyrit</p> <p>-Yella unecreḥ deg tneyrit</p>	<p>X</p> <p>X</p> <p>X</p>			<p>-Inelmaden akken ma llan deg tneyrit, refden-d ifassen-sen.</p> <p>-Yella-d uskasi s waṭas deg tneyrit acku yella-d umbaddal n tektiwin gar tselmadt d yinelmaden, akked yinelmaden gar-asen yef usentel n twennaḍt.</p> <p>-Inelmaden akken ma llan necraḥen deg temsirt-a, iejeb-asen lḥal i ulmad, yella-d ucmummeḥ deg tneyrit.</p>
<p>Tigzi n temsirt syur yinelmaden</p>	<p>-Takerḍa tanallayt teawen inelmaden ad gzun inumak n wawalen</p> <p>-Inelmaden gzan s shala tamsirt n umawal s wallal n tkerḍa tanallayt</p>	<p>X</p> <p>X</p>			<p>-Inelmaden gzan inumak n wawalen s tallelt n tkerḍa tanallayt acku smersen awalen-nni deg tefyar syur-sen yerna tifyar-nni d tid yesean anamek.</p> <p>-Takerḍa tanallayt tessishil, tessifsus yef yinelmaden tigzi n temsirt n umawal imi ur tewwi ara tselmadt-nni aṭas n wakud deg usegzi acku gzan s shala akked lemyawla tazla.</p>

Tafelwit uttun 2: Tsleḍt n tfeiwit n tannayt.

Amatar	Ittewlen	+	-	+/-	Tamawt
Addad n yinelmaden deg tneyrit	-inelmaden ssusmen.	x			/ Inelmaden ttnadin d acu ara ad yren ass-nni.
	-inelmaden sean timegleyt ad yren.	x			

Tafelwit uṭṭun 3: tiririt yef umatar amezwaru"addad n yinelmaden deg tneyrit

Amatar	Ittewlen	+	-	-/+	Tamawt
Tikli n yinelmaden deg lawan n useqdec n tkerça.	-Inelmaden smeḥsissen, rran-d lwelha-n sen yer temsirt.	x			-Imi zran tamsirt-n sen ad tili s tkerça n wallay inelmaden akken ma llan rran-d lwelha-n sen smeḥsissen i temsirt.
	-Takerça tanallayt tejbéd-d lwelha n yinelmaden ad yren.	x			-Deg tneyrit ulac sdaε, inelmaden rran-d lwelha-n sen s tsusmi.
	-Inelmaden ttekin deg temsirt.	x			-Akk inelmaden byan ad d-fken tikiwin i sean yef usentel n temsirt-nni i ywaren.

Tafelwit uṭṭun4: Tiririt yef umatar"tikli n yinelmaden deg lawan n useqdec n tkerça".

Amatar	Ittewlen	+	-	-/+	Tamawt
Timegleyt n yinelmaden n deg tneyrit	-Iferdisen yettilin deg tkerđa tanallayt: initen, tugniwin, unuyen ttæawanen deg ulmad.	x			-Seg tannayt-a, nufa-d iferdisen-a εawnen inelmaden deg ulmad imi ssishilen fell-asen tigzi n wawalen.
	-Inelmaden refden-d ifassen akken ad d-rren yef yisteqsiyen.	x			-Inelmaden akken ma llan deg tneyrit, refden-d ifassen-sen.
	-Inelmaden akken ma llan ttekkin deg uskasi dixel n tneyrit.	x			-Yella-d uskasi s waƙas deg tneyrit acku yella-d umbaddal n tektiwin gar tselmadt d yinelmaden, akked yinelmaden gar-asen yef usentel n twennađt.
	-Yella unecrađ deg tneyrit.	x			-Inelmaden akken ma llan necrađen deg temsirt-a, iejeb-asen lħal i ulmad, yella-d ucmummeđ deg tneyrit.

Tafelwit uđđun 5: Tiririt yef umatar wis krađ "timegleyt n yinelmaden deg tneyrit".

Amatar	Ittewlen	+	-	+/-	Tamawt
Tigzi n temsirt syur yinelmaden.	-Takerđa tanallayt tæawen inelmaden ad gzan inumak n wawalen	x			-Inelmaden gzan inumak n wawalen s tallelt n tkerđa tanallayt acku smersen awalen-nni deg tefyar syur-sen yerna tifyar-nni d tid yesean anamek.
	-Inelmaden gzan s shala tamsirt n umawal s wallal n tkerđa tanallayt	x			-Takerđa tanallayt tessishil, tessifsus yef yinelmaden tigzi n temsirt n umawal imi ur tewwi ara tselmadt-nni aƙas n wakud deg usegzi acku gzan s shala akked lemyawla tazla.

Tafelwit uđđun 6: Tiririt yef umatar wis ukkuz "tigzi n temsirt syur yinelmaden

Agzul

Tazrawt n umahil-a terza « Azal n tkerɗa tanallayt deg ulmad n umawal,ayerbaz amenzu» deg-s nebya ad nwali ma takerɗa tanallayt tetteawan inelmden deg usnerti n tzemmar-nsen timawalanin? Akken ad nessiweɗ ad d-nerr yef usteqsi-ya nga tannayt deg tneyrit ideg texdem tselmadt tamsirt yerzan armud n umawal s wallal i d-nessumer « tkerɗa tanallayt », takerɗa-ya d nekkenti i tt-id-iheggan s useyzaan n mindmaster, akken ad nwali ma s tidet tssifsus almad n umawal.

Ɗer taggara n umahil-a nufa-d allal n tkerɗa tanallayt yessishil almad n umawal s unecreh, d win i d-yeslawayen timegleyt d unezwu iwulmen i tyuri dixel n tneyrit, tin yur-s teslaway-d lebyi n yinelmaden akken ad ttekin deg ulmad, imi takerɗa-ya tjebbed-d lwelha-nsen yer tyuri s iferdisen-is am" tugna, unuyen, izamulen, initen",inegura-ya tteawanen deg usnerti n tzemmar-nsen timawalanin s sehala.