

Understanding Views on Sentience and Conservation: A Study of Emotional Experiences with Wildlife

Authors

Cpcc'Tgkm{.'Cpplg'N{pej . 'Mcvk'Tlej ctf u.'P gmg'F qwi rcu. cpf 'Nk{ 'Lghgt {

Gpxkqpo gpvcn'Uwf kgu'Rtqi tco . 'Dquvq'Eqmgi g.'Dquvq. O C.'24689.'WUC

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Igppkgt'Tgdgeec'Uej cwtg.'649'O eI wkpp.'F gr ctvo gpvqh'Uqekmqi {.'Dquvq'Eqmgi g.'Dquvq. O C'24689=[ngm{ clhB deQf w](#)

Authors' Contributions

CT.'CN.'MT.'P F.'cpf 'NL'f guki pgf 'vj g'r tqlgev'cpf 'eq/y tqvg vj g'o cpwuetkr 0

Running Title

Xlgy u'qp'Ugpkpeg'cpf 'Eqpugtxcvqp

Keywords

Ugpkpeg="eqpugtxcvqp="dkqf kxgtuk{ =y kf rkg="eqgz kvgpeg

Word Count

; 54:

Article Impact Statement

Vj ku'r cr gt 'kf gpvkgu'cpf 'o gcuwtgu'oj wo cp'r gtegr vqpu qh'cpko cn'ugpkpeg.ö'kpvkpi "cp go qvqpcn'cr r tqcej "q'tghgevkpu'qp'y kf rkg'kpvgtcevkpu. eqpugtxcvqp."cpf "dkqf kxgtuk{0

Acknowledgements

Vj g'tgugctej gtu'y qwf 'hmg'v'vj cpn'Rtqhguuqt'Igppkgt Uej cwtg.'vj g'Gpxkqpo gpvcn'Uwf kgu r tqi tco . 'Rtqhguuqt'Vcte'RkucpkI ctgcw.'qwt'hgmjy Ugpkqt'Tgugctej 'Ugo kpc't'encuo cvgu."cpf "qwt r ctvkr cpw'hqt'vj gk'eqpvtkdvwkqpu'v'qwt'uwf {0

Problem

Cu'j wo cpu"eqvkwg"q"gpctqcej "w qp"pcwtcrif cdkcw.

ugpvkpv'dgkpi u'lp'qtf gt'vq'tgeqi pk g'qwt'eqo o qp'r meg'qp'Gctvj 0Y kj lp'y ku'eqo o wpkv'ugvki .
y g'y cpv'q'hqvg't'o gcpki hwt'ghgevkpu'cdqw'j wo cp/cpk cnkpvgtcev'qpu'vj cv'y knkphwpeg
r ctvek cpw'qy p'nxgu0k'qwt'ecm'hqt'y tkwgp'pcttcv'xgu. y g'ctg'j qr kpi 'vq'j cxg'cp'ko o gf kvg
ghgev'qp'dqj 'vj g'tgugtej gtu'cpf "'vj g'r ctvek cpw0Dwrf kpi 'qh'h'qh'Tlej ctf uqp'kf gcu.'vj g
tgugtej gtu'dgn'xg'vj cv'y tkkpi 'r tqegu'y knkpk'cv'f kvexgt { 'hqt'vj g'r ctvek cpw.'kpv kt g
eqppgev'qp'dgy ggp'j wo cp'r ctvek cpw'cpf 'ugpvkpv'k'g.'cu'y gml'cu'r tqf weg'o gcpki 'cpf 'etgcv
pgy 'cy ctgpgu'qh'tgcrk' 'lp'vj g'r tqegu'*Tlej ctf uqp. 4223-0Vj g'tgugtej gtu'cempqy ngf i g'vj cv
y tkkpi 'ecppqv'dg'wv'k'p'gf 'h'qo 'vj g'h'g'g'zr gtlgpegu qh'vj qug'y d

vq'cempqy rñfi g'cpf 'uj ctg'vj g'r gtuqpcnr gtur gevkgu'qh'cm'tgugctej gtu'kpxqkxgf . 'j g'gk0Gcej
cwj qt'dtlpi u'wpls w'g'zr gtlgpegu."gf wecvkqp."cpf "go qvqp vq'vj g'vcdm0Uj ctłpi "vj gug'r gtur gevkgu
etgcvgu"o qtg'qr gp'cpf 'r gtuqpcnr'eqppgev'kqp"dgwy ggp vj g'tgugctej gtu'cpf "vj g'tgcf gtu0k'vj gkt
y qtm'Vtgxgu'cpf "eqmgi wgu'kpenf g'c'ugev'kqp'y j g'g vj g{'cempqy rñfi g'cpf 'uj ctg'vj gkt'xct {łpi
qr kłkpu'cpf 'xky r qkpw'qp'vj g'vqr k'qh'r tgugtxcvkqp0Vj g'cwj qtu'uj ctg'vj cv'y j k'vj g{'cm'ctg
r cuukqpcv'cdqw'vj g'uwdlgev'cpf 'ctg'eqpvtkdwłpi k'vngewcn'eqpv'v'q'vj g'ctv'eng."vj g{'ctg'pqv
cm'r gthge'v'c'ri pgf 'k'vj gkt'xky u'qh'pqp/j wo cp cpk' cni'ki j u'Vtgxgu'gv'c'ri0423; +0Uko k'ctn'f.
y g'j qf 'xct {łpi "qr kłkpu'cpf "dgr'ghu'qp'vj g'vqr k'qh'pqp/j wo cp'cpk' cni'ugpv'kpeg'cpf
eqpugt'xcv'kqp0Vj wu."Vtgxgu'cpf "eqmgi wgu'j cxg'k'pur k'gf vj ku'ugev'kqp."y j k'ej 'y g'j cxg'ej qugp'v'q
f gf k'cv'v'q'vj g'r gtuqpcnr'pctt'cv'kgu'qh'vj g'tgugctej gtu0

Lghgt { "dgr'kgu'vj cv'f geqput'w'łpi "vj g'f ggr n' /tqq'gf . j k'gt'ctej k'cni't'gr'v'k'puj k' "dgwy ggp
j wo cpu'cpf "pqp/j wo cp'cpk' cni'ku'gu'ugpv'k'ri0Grko k'cv'łpi vj gug'r tgeqpegk'gf "pq'v'k'pu'qh'j wo cp
uwr g'kt'kt'k' { 'cpf "r'g'c'łpi "k'v'vj g'ugpv'k'p'c'w'g'qh'cm'd'g'łpi u'y k'ni'cm'qy "cm'ur g'elgu'v'q"eqgz'ku'v'qp
Gct'vj "k'c"eqo r cuukqpcv'g'o c'ppgt'cpf "t'gf w'eg'vj g'ugx'gt'g j cdk'cv'f k'ut'w'v'k'p'cpf "u'wd'ugs w'gpv
dk'f k'x'gt'uk'v' { "m'uu'y g'ewt'gp'v' { "h'ceg0

F qwi r'cu'cti w'gu'vj cv'ugpv'k'peg'ku'vj g'ut'q'pi gu'v'eqppgev'k'qp u'j ct'gf "dgwy ggp"j wo cpu'cpf
pqp/j wo cp'cpk' cni'v'j wu."k'ku'vj g'f w' { "qh'j wo cpu v'q't'ge'qi p'k' g'vj cv'uj ct'gf "ugpv'k'peg'ku'k'p'f k'ge'v
eq'ph'le'v'y k'j "cp'vj t'qr q'eg'p't'kuo ."y j k'ej 'j cu'f t'k'x'gp'vj g'f g'ut'w'ev'k'p'qh'p'c'w'cn'j cdk'cv'0Y j k'g
eq'p'egr w'qh'ugpv'k'peg'o c { "dg'v'q'q'c'd'ut'ce'v'cpf "h'qt'g'ki p' h'qt' 'u'qo g'k'p'f k'k'f w'cu'v'q'qr g'pn' { "go dt'ceg.
T'g'km' { "ci t'ggu'y k'j "F qwi r'cu'vj cv'c'w'kw'f gu'v'qy ct'f u'j wo cp/cpk' cni't'gr'v'k'pu'o w'w'd'g't'ge'qp'uk'f g'gf
d { "vj g'eqo o q'p'r q'r w'v'k'p' "h'qt' 't'g'cn'le'q'p'ugt'xcv'k'p'v'q q'ewt'0T'g'km' { "h'ggu'vj cv'cp'vj t'qr q'eg'p't'kuo "ku'v'q
f ggr n' { "łpi t'c'k'p'gf "k'v'q'f c { "u'v'q'ek'v'kgu'vj cv'k'p'f k'k'f w'cu' o c { "p'ggf "v'ko g'v'q'ce'rn'ko cv'g'v'q'vj g'uj k'k'pi

r ctf ki o . "qt "gnug" yj g { "o c { "t glgev" yj gug" kf gcu" qwt ki j wVj wu. "T gkm { "hggnu" yj cv" yj g" dguv" cr r tqcej "ku
vq" gcug" r gqr rg" kp" vq" yj gug" f kuewuukqpu. "gur gekm { kh" yj g { "ctg" vphco kktct" y kj " yj g" vqr leu0

N { pej "ku" eqo r gmgf "vq" f geqpust wevf qo kpcpv" ur gekgu ecvgi qtkgu" cpf " y qtmci clpuv" yj g
j wo cp" gzege vqpcrkuv" htco gy qtn0 kpur ktf "d { " yj g" y qtmqh" Mktmug { "cpf " J gm tglej " *4232+ " N { pej
j qr gu" vq" dtkpi "kp" r gtur gevkgu" qh" gs wcrk { . "tgr nceki yj g" rpi wci g" qh" pqpj wo cp" ur gekgu" y kj
o wkur gekgu" wpf gtucpf kpi OCf f kkpccm { . "k" ku" ko r gtcvkg vq" cf xcpeg" qwt " Y guvtp" r wdrk
wvf gtucpf kpi "qh" cpko cn'ugpvkpeg" dg { qpf " wkrkctkcp xcncvkgp" qh" ur gekgu. "cpf " vqy ctf u" cp
wvf gtucpf kpi "qh" o wkur gekgu" cu" i qaf "vq" rkg" y kj . cpf "co qpi " *Mktmug { "cpf " J gm tglej . "4232+0

Tlej ctf u" dgrkgxgu" yj cv" yj g" dkpctkgu" yj cv" gzku" vgr ctcvki pqpj wo cp" cpko cnu" htqo " j wo cpu
ctg" j cto hwnht" cm' ur gekgu0 k" ku" kp" cm' ur gekgu dguv" kpvgt guv" yj cv" uwej " dkpctkgu" cpf " j kgtctej kgu" ctg
f kuo cpvrgf " dgecvug" cm' rkgu" j cxg" kpj gtgpv" xcncvkg0 Tlej ctf u" j qr gu" yj cv" gpi ci kpi "kp" etkccn' cpf
gptlej kpi "eqpxgtucvkgpu" cdqw" cpko cn'ugpvkpeg" ku cp" ko r qtcvpv" vgr "kp" dtgcnkpi " f qy p" yj gug
vcf kkpccn' dctt kgtu0

Trends in Existing Literature

Vj g" gzku" kpi "dqf { "qh" t" guctej "g" zr mt gu" yj g" tqrg" qh" xcncvkgu. "cvkwf gu. "cpf " f kt gev" kpvgtcevkgpu
qp" yj g" tgrcvkgpuj kr "dgy ggp" j wo cp" cpf " pqpj wo cp" etgcwtgu. ekk gp" o qpkqt kpi . "cpf
eqpugtxcvkgp" r tcevkgu0 Vj gtg" ctg" c" xctkvg { "qh" t" gpf u gur gekm { "ucnkgpv" vq" hwwt g" t" guctej "qp" yj g
tqrg" qh" ugpvkpeg" kp" o qkxcvkgpu" htq" dgwgt" t" gcvo gpv" qh" y kf rkhg0 P wo gtqwu" uwf kgu" j ki j rki j v" yj g
ko r qtcpeg" qh" eqo r cuukap" kp" j wo cp" cvkwf gu" vqy ctf u y kf rkhg. "tgr qt vki "go qkqpcn' xctkcdrgu" cu
yj g" utqpi guv" r tgf levqt" qh" y kf rkhg" o cpci go gpv" qh" j qwug" ur cttqy u=cpf . " yj cv" j wo cp" go r cvj {
vqy ctf "cpko cnu" cpf " utqpi gt" hggkpi u" cdqw" ugpvkpeg o c { "rgcf "vq" dgwgt" t" gcvo gpv" qh" cpko cnu
*Nctupq" gv" cr0 "4238=Eqtpkuj "gv" cr0 "423: +0Go r cvj gve tgcvo gpv" qh" cpko cnu" gzvgpf u" vq

r ctvkr cpw'vj tqwi j "eqpxgplgpeg"uco r npi . "cu'vj g'tgugctej gtu'lwtxg{ gf "cwgpf ggu'vq"cp"cpko cn
y gntctg'u{o r qukwo "423: +0Kp'dqvj "uwf lgu."r ctvkr cpw j cf "ctgcf { "f go qputcvgf "c'uki pklcepv
kpvgtguv'lp"cpko cni'cpf "cpko cni'y gmlgkpi . "y j lej 'ko r cevgf tguwu"*Nctuqp"gv'cni"4238=Eqtpkuj "gv
cni"423: +0Qwt'uwf { "y km'dg'htqo "c'o qtg'o kzgf "dceni tqwvf qh'r gqr ng'y kj "xctkqu'kpvgtguu."pqv
lwv'ko kgf "vq'r gqr ng'y j q"ctgcf { "uj qy "ur gekni'kpvgtguv'lp"cpko cni

Areas for Further Study

Y j kg'vj g'rkgtcwtg"qp'y kf rkhg"eqxgtu'dqvj "c'tcpi g qh'uwvqr leu'cpf "eqpukf gtcdrf" f gr vj
kp'ur gekle"ctgcu."uki pklcepvi cr u'r gtukn0Ur geklecm{ . vj gtg'ku'o wej "vq'dg'uwf kgf "qp'vj g
r gtegr vkp"qh'cpko cni'ugpvkpeg'd{ "j wo cp'dgkpi u."j qy vj ku'ko r ceu'j wo cp/cpko cni'grvkpuj kr u.
cpf "y j cv'ghgevu'vj ku'j cu'qp"eqpugtxcvkp"ghqtu cpf "cy ctgpguu0Nctuqp"cpf "eqmgci wgu'cpcni'uku
qh'gzr gtlgp'kni'hcexqtu'uw r qt'u'vj g'dgrkh'vj cv'gzr gtlgpegu y kj "y kf rkhg'utgpi vj gp"chgevkxg"cpf
go qvkpcni'tgur qpugu'vq'y kf rkhg'uko wk"*Nctuqp."gv'cni"4238+0Vj ku'uwf { "qr gpu'wr "cp"ctgc'ht
tgugctej "qp'vj g'tqng'qh'wvf gtucpf kpi "cpf "cr r tgekvkq qh'ugpvkpeg'ht"vj g'htto cvkq"qh
go qvkpcni'f kur quk'kpu'cpf "cvkwf gu'vqy ctf "y kf rkhg0Vj g'y qtn'qh'Eqtpkuj "cpf "eqmgci wgu
ulo krcni' "etgcvgu'vj g'r qvgp'kni'ht'hw'vj gt'tgugctej qp'y j cv'gzcew' "o qv'xcvgu'r gqr ng'vq"eqppgev'vq
cpko cni'ugpvkpeg"*423: +0Y j kg'vj g'tgugctej gtu'gzco kpg f go qi tcr j le'hcexqtu'vj cv'kphwpeg

r t g x l q w u n { ' d g g p ' c w g o r v g f ' k p ' q v j g t ' t g u g c t e j 0 Y g ' y k m l r t q o r v ' j g ' u w f { ' r c t v l e k r c p w u ' v q
v j q w i j v h w m { ' t g h r g e v ' w r q p ' v j g k ' k p v g t c e v k a p u ' y k j p q p j w o c p ' y k f r k h g ' c p k o c n u 0 Y g ' y c p v ' v q ' e c m
c v g p v k a p ' v q ' v j g ' w p k s w g ' g p g t i g l e ' d a p f ' v j c v ' k u ' u j c t g f d g w y g g p ' y q ' u g p v k e p v ' d g k p i u 0 Y g ' y k m
g p e q w t c i g ' q w t ' r c t v l e k r c p w u ' v q ' d t k p i ' c p ' g x g t ' r t g u g p v c y c t g p g u u ' q h ' e q p u e k q w a p g u u ' v j c v ' c m l h x k p i
e t g c w t g u ' r q u u g u u 0 Y g ' j q r g ' v j c v ' v j k u ' j g k i j v g p g f ' c y c t g p g u u e c p ' r g c f ' v q ' o q t g ' o g c p k p i h w n
f k u e w u k a p . ' t g h r g e v k a p . ' c p f ' e q p v k p w g f ' o w w c m { ' d g p g h e k e n k p v g t c e v k a p u ' d g w y g g p ' q w t ' u w f {
r c t v l e k r c p w u ' c p f ' c p { ' p q p j w o c p ' y k f r k h g ' c p k o c n u ' v j g { o c { ' g p e q w p v g t 0

Research Question

Y j c v ' o q v k c v g u ' r c t v l e k r c p w u ' v q ' e q p p g e v ' v q ' c p k o c n u g p v k e p e g . c p f ' j q y ' e q w f ' v j k u
o q v k c v k a p ' r g c f ' v q ' d g w g t ' t g c w o g p v ' q h ' y k f r k h g ' A Y g j q r g ' v q ' c f f ' v q ' g z k u k p i ' h x g t c w t g ' d { ' h k k p i ' v j g
i c r u ' e q p e g t p k p i ' v j g ' g o q v k a p c n i k o r c e v ' q h ' y k f r k h g ' k p v g t c e v k a p c p f ' c e v k a p c d r g ' g h g e w ' v j k u ' j c u ' q p
j w o c p ' d g k p i u ' v q y c t f u ' e q p u g t x c v k a p ' c p f ' y k f r k h g ' j c d k c v r t q v g e v k a p 0 K g c m { . ' y g ' y k m k f g p v k h {
r c w g t p u ' c p f ' t g p f u ' k p ' y k f r k h g ' k p v g t c e v k a p u ' v j c v f g o q p u t c v g ' g h g e v k g ' y c { u ' v q ' g p e q w t c i g

qwt'r ctvlek cpwøqxgtcm'gzr gtlgpeg'y kj 'yj g'uwwf {0Dquxqp'Eqrngi g'uwwf gpw'ctg'wpls wg'lp'yj gk
cdkxv\ 'vq'tghgeev.'eqo o wplkcvg.'cpf "go r cvj k g'y kj qyj gtu0Cm'Dquxqp'Eqrngi g'uwwf gpw'ctg
tgs wktgf 'vq'eqo r rvg'yj g'Eqtg'Ewtkewwo 'y j lej 'hqvgtu etklecn'yj kpnkpi 'unkm'cpf 'yj g'cdkxv\ 'vq
eqo r cuikqpcvgn\ 'eqo o wplkcvg'kf gcu00 qtgqxtg.'yj g'Lguwkvxcnwgur tqo wni cvgf 'yj tqwi j qw
Dquxqp'Eqrngi g'r ræg'c'utqpi "go r j cuku"qp'ugtxleg vq"qyj gtu'cpf 'y qtnkpi 'vq'o cm

r ctvkr cpvau'uvqtkgu'd{ 'f kuugevki 'vj go '*D3pkuj /Dtgf plej . 'r 032."423: +0Qwt"cpcn{ uku'go r j cuk gu
kpwkxg'y kuf qo u'y j kg'go r mq{ kpi 'tgugctej "eqpxgpvkp y j gp"cr r tqr tkvg0

Vj g'f cv'y cu'cuuguugf "wukpi "c'ugtkgu'qh's wrkcvxg s wgunkpu'vj cv'eqpukf gt'vj g'go qvkpu
cpf "ugpvkpeg"dgj kpf "vj g'uvdo kwgf 'r j qvqi tcr j u.'xkf gqu. cpf "cwf kq'tgeqtf kpi u0S wgunkpu'vj cv
i vkf g'qwt"fcv"cpcn{ uku'kpenwf g<y j cv'v{ r g'qh'y kf cpko cn'ku'uj qy p'AY j cv'ku'vj g'eqpvz'v'qh'vj g
r j qvq'AY j cv'f qgu'vj g'eqo r qukkp"qh'vj g'r j qvqi tcr j uc{ "cdqw'vj g'tgrvkpuj k "dgwy ggp'vj g
r gtuqp"cpf "vj g'cpko cn'AY j cv'ecr vkpu'cpf "uvqtkgu'ctg kpenwf gf AY j cv'go qvkpu'f'vj g

ercko "v'j ku'ur ceg0Vj g'lvgtcevkpu'dgy ggp'j wo cpu'cpf 'v'j gug'eq/kpj cdkcpw'qh'v'j g'r rcpgv
v'j gtgd{ 'h'qto 'v'j g'eqo o wpk{ 'qh'v'j g'Gctv'j 0Vq'r tqvgev'v'j ku'eqo o wpk{ 'cpf 'o cng'k'utqpi gt. 'k'ku
guugpvkn'v'j cv'y g'hmn{ 'go dtceg'v'j g'go qvkpu'uj ctgf dgy ggp'j wo cpu'cpf 'pqp/j wo cp'cpko cnu
y j gp'y g'lvgtce0Ugpkpi 'hggkpi u'cpf 'go qvkpu'dgy ggp dgkpi u'etgcvgu'v'j g'qr r qtwpk{ 'v'dwkrf
pqv'qpn{ 'cy ctgpguu'qh'gcej 'qv'j gt'v'j u'gpkpeg. 'dwcnuq' o gcpkpi hwn'tgrvkpuj kr u'y j kej 'ecp'ur wt
r gqr ng'v'j 'cng'cevkp'v'j r tqvgev'cpko cnu0Y g'j qr g v'j tqwi j 'qwt'tgugctej 'y g'y kn'dg'cdng'v'j r wn
v'j gug'gzr gtlgpegu'q'w'qh'v'j g'r ctv'ekr cpw. 'cpf 'd{ cmqy kpi 'v'j go 'v'j r qwt'v'j gkt'go qvkpu'lv'q
tghngevkpu. 'w'pf gtucpf 'j qy 'v'j gug'hggkpi u'ecp'upqy dcmkpv'eqpugtxcvkp'ghqtu0

Results

Dgecwug'c'pqp/tepf qo 'eqpxgplgpeg'uco r ng'y cu'wugf. v'j gtg'ku'c'tgrv'kxgn{ 'f'kxgtug'i tqw'qh
r ctv'ekr cpw'lv'j ku'uwf {0Vj gtg'y gtg'c'v'q'v'ni'qh 66'r ctv'ekr cpw'lv'j g'uwf {0Vj ku'lv'penf gf '44'j qo qucr lgpu
cp'f'44'pqp/j wo cp'cpko cnu'qh'xctkqwu'ur geku0Vj gug cpko cnu'ur geku'lv'penf gf 'c'y'q'qf r genht. 'j wo r dcm
y j cng. 'upcr r kpi 'wt'ng. 'gm'drcen'dgct. 'y j cng. 'ugcn dwpp{. 'ugci wn'ugc'wt'ng. 'f ggt. 'o cmctf. 'dkuq. uy cp.
I d' q'w'v'ekp'i qcv. 'v'v'ekp'i qcv. 'Ä
y j \$#g44 f r g. 'c" '4 r \$ g. 'Vpk_ u'"O

O gfk'V{r g	
Rj qvq	39
Xlf gq	5
P qpg	3
Eqmgi g'Cwgpf gf	
Dquqp'Eqmgi g	35
Qvj gt	6

Trends

Trend 1: Key words about animal sentience

Dgecwug'uwwf lgu'kp'vj ku'ctgc'qh'tgugctej 'j cxg'kpxgunki cvgf j wo cp'cempqy ngf i go gpv'qh cpko cnl'ugpvkpeg.'c'ej qugp'vj go g'ht'cpcn'uku'y cu vj g'wug'qh'vj g'y qtf 'ugpvkpeg'qt'c'tgrv'gf cempqy ngf i go gpv'qh'pqp/j wo cp'cpko cnl'go qv'qp'y kj kp vj g'f'guet'kdgf 'kpv'tc'ev'kp'0Hqwt'vggp.'qt 85085' . 'qh'vj g'r ct'v'ekr cpw'eqo o gpv'gf 'qp'vj g'r gte'g'k'gf go qv'kpu'qh'vj g'cpko cnl'qt'cpko cni'vj g' gpe'q'wp'v'gt'gf'0Vj g'uwwf { 'y cu'cm quv'gp'v'k'gn' 'eqo r qugf qh'hgo cm'j wo cp'r ct'v'ekr cpw'y j kej 'o c' { eqtt'gr'v'g'v'vj g'o cl'qt'k'v' 'qh'r ct'v'ekr cpw'o cni'pi 'ugpv'k'peg/tgr'v'gf eqo o gpw'0Eqtp'kuj 'cpf eqm'gci wgu'h'q'w'pf 'vj cv'hgo cm'g'u'y gt'g'o qt'g'rk'ng' 'v' gpi ci g'go qv'k'p'cm' 'y kj 'pqp/j wo cp'cpko cni '*Eqtp'kuj 'gv'cn'0'423: +0J qy gxgt.'pq'r ct'v'ekr cpw'g'z'r r'ek'kn' wugf 'vj g'y qtf 'ugpv'k'peg'kp'vj g'kt p'ct't'c'v'k'g'0Vj gt'gh'qt'g.'eqo o gpw'qp'cpf 'tgr'v'gf 'v' r' gte'g'k'gf go qv'k'p'cpf 'ur k'k'w'cn'l'p'v'gt'ur gel'gu eqpp'g'ev'k'p'y gt'g'eqp'uk'f'gt'gf 'w'p'f'gt'vj g'vj go g'qh'ugpv'k'peg'0

Trend 2: Key words about human emotional experience

Vj tgg'qh'vj g'44'r ct'v'ekr cpw'*35085' +y j q'ng'h'p'ct't'c'v'k'g r quw't'gr qt'v'gf 'hg'g'rk'pi 'go r cvj { hqt'cp'qt'#

j wo cp'lpvgtcevkqpu'y kj 'y kf rkhg'cpko cnu'cpf 'yj gk'j cdkcuv0Vj gtg'y gtg'ugxgtenr ctvlekr cpwu'y j q
kpf lecvgf 'yj cv'y g{ 'hgn'cr r tgj gpukxg'qt'hgcthwn'cdqww yj gk'lpvgtcevkqpu'y kj 'y kf 'cpko cnu0Vj tgg
r ctvlekr cpwu'qh'y g'44'vqcn'kpf lecvgf 'yj cv'y g{ 'hgn'pgtxqwu'qt'hgcthwn'ctqwpf 'cpko cnu'dw'y q'qh
yj g'y tgg'tgr qtvgf 'wnko cvgn' 'j cxkpi 'r qukkxg'hggkpi u cdqw'yj g'lpvgtcevkqpu0

Trend 3: Transformative effect of experience

Dgecwug'r tgxkqwu'uwwf lgu'umi i guvgf 'yj cv'r gtuqpcn'gZR gtlgpegu y kj 'y kf rkhg'j cxg'yj g
r qy gt'vq'ej cpi g'j wo cpu'r gtur gevkgu'cpf 'cevkqpu'vqy ctf qyj gt'ur gekgu.'yj g'tgugctej gtu
kpxguki cvgf 'yj g'v'cpuhtqto cvkxg'pcwtg'qh'yj g'r ctvlekr cpwu) gZR gtlgpegu'*Nctuqp'g'v'cn0'4238=
F qrd{ . '4242='Ueqw'g'v'cn0'4242-0'Qh'yj g'44'f guetkr vkg pcttcvkgu. ': 'r ctvlekr cpwu*5808' +
gZR rlekn{ 'f guetkdgf 'c'v'cpuhtqto cvkxg'ghgevtqo yj gk'gZR gtlgpeg'y kj 'y kf rkhg.'9'r ctvlekr cpwu
*530: ' +lpenmf gf 'pq'tghgtgpeg'vq'c'v'cpuhtqto cvkxg'ghgevtqo'qh'yj gk'gZR gtlgpeg.'cpf 'yj g'tgo clkpi
9'r ctvlekr cpwu*530: ' +lpenmf gf 'ko r rlekn'tghgtgpegu vq'yj g'gZR gtlgpegu'eqpvtkdwkq'vq'yj gk'pgy
r gtur gevkg0Ukz'qh'yj g'gki j v'v'cpuhtqto cvkxg'gZR gtlgpegu kpxqkxgf 'c'j wo cpw'lpvgtcevkq'p'y kj 'c
ur gekgu'yj g'r ctvlekr cpv'f qgu'pqv'ugg'qt'lpvgtcev'y kj qp'c'tgi wxt'dcuku0Cu'yj ku'tgugctej 'y cu
eqpf wevgf 'kp'yj g'o kf uv'qh'yj g'EQXKF/3; 'r cpf go le.'vy q qh'yj g'gZR rlekn{ 'v'cpuhtqto cvkxg
gZR gtlgpegu'lpenmf g'tghgtgpegu'vq'yj g'ko r qtvcpeg'qh'eqppgevkq'p'y kj 'qyj gt'ur gekgu'f wtkpi 'yj ku
r gtlqf 'qh'kuqrcvkq0'Hkxg'qh'yj g'gki j v'v'cpuhtqto cvkxg gZR gtlgpegu'lpenmf gf 'gZR rlekn'tghgtgpegu'vq
r gtuqpcn'cevkq'vqy ctf 'eqpugtxcvkq0Qpg'v'cpuhtqto cvkxg gZR gtlgpeg'j gir gf 'c'r ctvlekr cpv'hgn
r gtuqpcn{ 'eqppgevgf 'vq'y kf rkhg0'Vj gtg'y cu'cp'qxgty j gm kpi v'gpf 'kp'r ctvlekr cpwu'gZR gtlgpegu
ecwulpi 'tghgevkq'qp'o wnkur gekgu'eqgzkvgepg0'Qh'yj g'eqo dkgf '37'gZR rlekn{ 'cpf 'ko r rlekn{
v'cpuhtqto cvkxg'gZR gtlgpegu.'; 'lpenmf gf 'c'tghgevkq qp'eqgzkvgepg'cpf 'yj g'gh

Vj g'9'r ctvkr cpw'y j q'f kf "pqvtgr qtv'qp"vj g'tcpuhqto cvkxg'pcwtg'qh'vj gk'y kf rkg'g'zr gtlgpegu
uj qy gf 'hgy 'eqo o qpcrkkgu0"Vj g'ur gekgu'gpeqwpvgtgf cpf 'mcecvkpu'qh'vj gug'pcttcvkxgu'y gtg
xctkgf 0Qpg'r ctvkr cpv'r qpf gtu'y j { 'c'upcr r kpi 'wtvrg tgvwtpu'v'vj gk' { ctf "qp'cp'cppwcn'dcuku0
ōJ gtgā'o { 'vj qwi j v'ō c { dg'uj g'ej qqugu'qwt'my p'dgecwug y g'j cxg'vj g'qpn' 'pcwtcn'hy p'kp'vj g
pgki j dqtj qqf #AP q'htvkr gt0P q'r guvkrf gu0P q'cp { vj kpi ō Cpqvj gt'r ctvkr cpv'tgo ctngf "qp'c
ugcnu'cdkrk' { 'v'eqgzkv'y kj 'j wo cpu'kp'Nc' Lqmc<ō'Kuy co 'kp'vj g'y cvgt'cpf 'y cu'j qpgun'
uwr tkugf 'd { 'vj g'ugcnu'rcni'qh'j quvkrk' { 'cpf 'uggo kpi n' f lutgi ctf 'hqt'j wo cpu'uy ko o kpi 'kp'wej
enug'r tqzko kv.ō0"Vj g'r ctvkr cpw'ctg'cdng'v'cempqy ngf i g cpf 'tghge'v'qp'vj gk'g'zr gtlgpegu'y kj
qvj gt'ur gekgu.'dw'f q'pqvtgr qtv'cp { 'gxkf gpeg'qh'c ej cpi gf 'cvkwf g'qt'r gtur gev'xg'hqmy kpi 'vj g
kpgtcev'kp05"qh'vj g'9'r ctvkr cpw'vj cv'f kf "pqvtgo ctm'qp'tcpuhqto cvkqp'ctg'uwf gpw'qh
Gpxkqpo gpv'cn'Uwf kgu0

Trend 4: Species Type

Qh'vj g'44'f guetkr v'xg'pcttcvkxgu.'35'r quu'7; Ō; ' +hgewugf "qp'cp'kpgtcev'kp'y kj 'c
vj tgc'vpgf "qt'tctg'ur gekgu'vj cv'vj g'r ctvkr cpv'f qgu pqv'eqo o qpn' 'gpeqwpvgt'kp'vj gk'gxgt { f c {
rkg0Vj gug'ur gekgu'kpen'f gf 'c'ugc'rkqp.'j wo r dcemy j crgu.'dgctu.'cp'gm'c'f ggt.'ugc'wtvrgu.'dkuqp.
o qwpv'kp'i qcvu.'c'vgtter kp.'ugcnu.'uy cpu.'cpf 'c'wtvrg { 0Qh'vj gug'35'r quu'hgcwtkpi 'kpgtcev'kpu
y kj 'tctg'cpko cnu.'8'r quu'68Ō7' -'cnu'g'zr r'ekm' f guetkdgf "c'tcpuhqto cvkxg'ghge'v'qp'vj g
r ctvkr cpv'tqo 'vj g'gpeqwpvgt0Qpg'r ctvkr cpv'uckf vj gk'kpgtcev'kp'y kj 'c'ugc'rkqp'tgchko gf
vj gk'o qv'xev'kp'v'r tqv'ev'y kf rkg'cpf 'hgcxg'cpko cnu crpg'ōv'f q'vj gk'vj kpi ō Cpqvj gt
r ctvkr cpv'y cu'tgo kpf gf "qh'vj g'ko r qv'cpeg'qh'eqpugt'xcv'kp cpf 'vj g'eqgzkv'gpeg'qh'j wo cpu'cpf
pqpj wo cp'cpko cnu'chgt'vj gk'kpgtcev'kp'y kj 'uy cpu0O qtgqxt.'y q'r ctvkr cpw'vj cv'y tqv
cdqw'vj gk'kpgtcev'kpu'y kj 'j wo r dcen'y j crgu'f guetkdgf vj g'gpeqwpvgtu'cu'o cnpki 'vj go 'tghge'v
qp'vj g'j wo cp'ko r cev'qp'vj g'gpxkqpo gpv'cpf 'vj g'etvgn'v'gco gpv'qh'y j crgu'kp'ecr v'xkv'.'cpf

f guetkdgf 'hggrkpi 'kpur ktgf 'v'eqpvkpwg'yj gk'eqpugtxcvkqp'ghqtu0Qh'yj g'; 'r quu'hgcwtkpi
kpvgtcevkqpu'y kj 'o qtg'eqo o qp'cpko cnu.'4'r quu'*4404' +cnuq'f guetkdgf 'c'tcpuhqto cvkxg'ghgev
qp'yj g'r ctvlekr cpv'htqo 'yj g'gpeqwpvgt0Vj wu.'pcttcvkxgu cdqw'gpeqwpvgtu'y kj 'tctg'cpko cnu'y gtg
409'ko gu'o qtg'rkgnf 'v'f kuewu'c'tcpuhqto cvkxg ko r cev'yj cp'gpeqwpvgtu'y kj 'eqo o qp'cpko cnu0
c0 35'qh'yj g'44'r quu'*7; 0; ' +cnuq'kpenf gf 'c'tghgevkkp qp'eqgzkvgep.'yj g'j wo cp'ko r cev
qp'yj g'uwtxkcn'qh'yj g'ur gekgu.'cpf lqt'yj g'ghgevqh'j wo cp'qt'pqpj wo cp'cpko cnu'r tgugpeg
cu'c'r quukdr'f kuwtdcepeg'v'yj g'qyj gt0Qh'yj g'6'r quu yj cv'hqewugf "qp'eqgzkvgep.'cml'qwt
*322' +y gtg'eqppgevgf 'v'kpvgtcevkqpu'y kj 'tctg'cpko cnu0Kp"qpg'r quv'cdqw'o qwpvckp
i qcu.'yj g'r ctvlekr cpv'uj ctgf 'yj cv'yj g'gizr g'kgep o cf g'yj go "0tgcrl' g'yj cv'j wo cp'dgkpi u
eqgzkv'y kj 'cpko cnu'cu'y g'uj ctg'yj g'uco g'gctvj 'y kj yj go 0'Kp'cpqyj gt'r quv.'c'r ctvlekr cpv
yj cv'kpvgtcevgf 'y kj 'dkuqp'gizr m'kpgf 'yj cv'yj g'gpeqwpvgt o cf g'yj go "0vj kpm'yj cv'eqgzkvgep
y kj 'cpko cnu'ku'r quukdr'0'Qh'yj g'8'r quu'yj cv'f gcny kj 'yj g'j wo cp'ko r cev'qp'pqpj wo cp
cpko cnu.'5'qh'yj g'8'*72' +r quu'y gtg'eqppgevgf 'v' tctg'ur gekgu0Qpg'r quv'cdqw'ugc'wt vgu
tgo kpf gf 'c'r ctvlekr cpv'cdqw'0vj g'ko r cev'yj cv'j wo cp

cpko cnu'uj ctkpi 'c'ur ceg0J qy gxgt. 'qh'vj g'35'r quu'vj cv'tghngevgf "qp'vj gug'vqr keu'cu'y gmi'cu
eqgz kugpeg. ", 'r quu'"8604: ' +y gtg'htqo 'kpgtcevqpu y kj 'tctg'cpko cnu0

Trend 5: Composition of Photograph

J qy 'f'kf 'r tqzko kv 'chgevj' qy 'vj g{'hgn'cdqw'vj g'cpko cnaF kf "k'gxqng'tgur gev.'hgctA

c0 Y qqf r gengt <öJ g'f'kf pø'uggo "vq'o kpf "o g'uvcpf kpi 'uq enqug.'s wkw' 'o guo gtl gf "y j kg

y cvej kpi 'j ko 'j cr r kn' 'y qqf dqt kpi "cy c{=j g'uggo gf 'tcvj gt r tqwf "vq'uj qy 'qh'h'j ku

r qy gt/r genkpi "cdk'k'gu0K'hgn'vj cv'vj ku'y qqf r gengt cewcm' 'hknf 'vj g'cwf kgpeg.'uq"K

hqmqy gf 'j ko "cpf 'hko gf 'j ko 'y j kg'pco kpi 'j ko "Y cngtö

cemc'f'cbio'cidd
d0 Gm'okj g'nu'uj puqv'f kgev'g'zr g'f'j kpi 'j ko 'j cr r kn' 'y cewcg0

- k0 ðVj g'o quv'tgo ctædrg'gZR gtlgpeg'y cu'y kj 'c'i tqwr 'qh'y j crgu'y j lej 'eqo g
 vj tqwi j 'qwt'y cvgtu'kp'O ctej 'cpf 'Cr tkn'gcej '{ gct0Uggkpi vj gug'j vi g'cpko cnu
 tgcml 'r wu'j qy 'uo cm'y g'ctg'kpva'r gtur gevkgö
- k0 ðVj gtg'y g'f tkhgf 'y j kg'dgkpi 'uwtqwpf gf 'd{ 'J wo r dcemu hqt 'yj tgg'j qwtuö
- g0 UgcndöCv'j ku'eqxg'qp'v'j g'y cvgt.'o cp{ 'ugcni'i cvj gtgf ctqwpf 'v'uwpcvj g0Kuy co 'kp'vj g
 y cvgt'cpf 'y cu'j qpguwl 'uwr tkugf 'd{ 'vj g'ugcnu'æremqh'j quv'kv' 'cpf 'uggo kpi n' 'f kutgi ctf
 hqt'j wo cpu'uy ko o kpi 'kp'uwej 'emug'r tqzko kv'0Vj g'ugcnu y gtg'uwpcvj kpi . 'uy ko o kpi .
 erko dlpi 'qp'vj g'tqemu.'gplq{ kpi 'vj g'uwpcvj . 'gei ' "Ky cu ucpf kpi 'uwr gt'emug'v'v' q'ugcnu
 y j q'uggo gf 'v'i gv'kp'cp'cti wo gpv'y kj 'gcej 'qvj gt '{ gvf kf 'pqv'gxgp'dcv'cp'g{ g'cv'o g0
 Rtgw{ 'pgcv'j qy 'ceewuqo gf 'cpko cni'ecp'i gv'v'gdgkpi pgct'j wo cpuö
- h0 Dwpp{ <ðK'y cupø'o qxkpi 'cv'cm'gxgp'y j gp'Keco g'emug v'k' 'cpf 'k'y cupø'drkpnkpi lkw
 g{ g'y cupø'o qxkpi 0Kdgi cp'v'i gv'y qttkgf 'cpf 'eqpukf gt vj g'r quukdkv' 'vj cv'vj g'dwpp{ 'y cu
 htq| gp'v'f gcvj . 'y j lej 'uectgf 'o g'cpf 'o cf g'o g'hggnuq'uqtt{ 'hqt'k0Ky qwr 'pqv'eqpukf gt
 o { ugrh'cp'cpko cni'qxtg'd{ 'cp{ 'o gcpu.'cpf 'pqto cm' co 'o qtg'chtckf 'v'i gv'emug'v'cp{
 y kf 'cpko cni'0Rgtj cr u'vj g'hcev'vj cv'vj ku'dwpp{ 'y cu uq'f ghpugruu'ku'y j cv'o cf g'o g'pqv
 hgn'vj tgcvgpgf 'd{ 'k'dw'tcvj gt'vj kpnkpi 'qh'y c{ u v'v' 'v'j'j gr 'k0
- i 0 F ggt<ðKmqmgf 'qwu'f g'v'j g'y kpf qy 'qh'o { 'j qwug'cpf ucy 'c'f ggt'uuctkpi 'cv'o g'cpf
 uqo r kpi 0K'y cu'c'tgcm' 'co c| kpi 'gZR gtlgpeg'v'ugg vj g'f ggt'tgeqi pk g'cpf 'kpvgtcev'y kj
 o g0
- j 0 Dkuqp<ðQp'o { 'y c{ 'vj gtg.'Kuvqr r gf 'o { 'ect'v'vcng c'mqm'cv'vj ku'i tqwr 'qh'dkuqp0K
 y cvej gf 'vj go 'hqt'c'y j kg.'cpf 'gplq{ gf 'dgkpi 'kp'vj gk r t gugpeg0Vj g{ 'f kf pø'uggo 'v'
 pqv'eg'o g'cpf 'y gpv'cdqvw'vj gk'f c{ 'i tcl kpi 'cpf 'y cm'kpi ctqwpf 0

10 I qcvu<ōKi qv'c'dk'p'gtxqwu'cu'vj g{ 'eco g'emug'v'wu'v'etquu'vj g'r cvj 0Vj g{ 'f'k' 'pqv'uggo
vq'o kpf 'vj g'f'cev'vj cv'vj gtg'y gtg'r gqr ng'cni'cmipi 'vj g'r cvj . 'cu'iqpi 'cu'y g'f'k' 'pqv'i gv'vqq
enqugō

10 Ugc'Nkqp<ōQp'qpg'gzr gf k'kqp'y g'gpeqwpvgtgf 'c'ugc nkqp'ur tcy ngf "qp'c'dgpej 'tgukpi 0K
ucv'qp'vj g'dgpej "qr r qukg."cdqw'8'hggv'cy c{0K'iqqngf wr . 'k'gp'k'k'f "o g'cu'c'pqp/vj tgcv
cpf 'y gpv'dcem'v'unggr 0K'eqwf p'ø'j grr "dw'p'q'v'eg c'r gtuqperkv{ 'v'j ko . 'nkng'j qy "{ qw'hgg
y j gp "{ qw'g'p'cr r kpi "qp'vj g'eqwej "cpf "uqo gqpg'y cmu k'p'uq "{ qw'iqqm'vr "dghqtg'i two r k'f
i q'dcem'v'upqq| kpi ō

67067' "qh'r quu'tghgtgpegf 'j wo cp'r tqzko kv{ 'v'j y k'f nk'g ur geku0Ugxgtcn'qh'vj gug'r quu

fgcwtgf "cp"cur geōō 0Ugxgt

hpf lpi u'd { 'kmwo kpcvpi 'vj g'xgt dci g'wugf 'vq'f guetkdg'pqp/j wo cp'cpko cni'go qvqpu'cpf 'ugpvkpeg
cpf 'tghphqtelpi 'vj gk'tguwmu'tgi ctf lpi 'c'eqttrgvkqp dgy ggp'hgo cngu'cpf 'go qvqpcrleqppgevkqp
y kj 'pqp/j wo cp'cpko cni'Eqtpruj 'gv'cni'423: -0Hqwtvggp qh'vj g'y gpv{/wy q'r ctvkr cpw'y tqvg
cdqw'vj g'r gtegxgf 'go qvqpu'qh'vj g'cpko cni'kp'uqo g ecr cekv{ 'kpf lecvpi 'cp'cempqy rgi go gpv'qh
pqp/j wo cp'cpko cni'ugpvkpeg0k'qy gt'y qtf u.'o qtg'vj cp j cni'qh'vj g'r ctvkr cpw'kpenmf gf
eqo o gpw'tgrvpi 'vq'cpko cni'ugpvkpeg'y j gp'cungf 'vq uj ctg'c'pcttcvkg'cdqw'c'y kf rkhg
kpvgtcevqp0vj gug'r gtegxgf 'go qvqpu'tcpi gf 'öecro ö vq'öci i tguukxgö'cpf 'vj g'r quw'kpenmf gf
y qtf u'wej 'cu'gzekgf . 'tgrczgf . 'htwutcvgf . 'wpr j cugf . eqpvgr0Qh'vj g'r quw'vj cv'kpenmf gf 'vj gug
ng{y qtf u'cpf 'ugpvko gpw.'vj g'ur gekgu'qh'vj g'cpko cntcpi gf 'htqo 'mqecn'dcem{ ctf 'dglpi u'vq
kpvgtpcvqpcn'tctg'ur gekgu'kpf lecvpi 'vj cv'ur gekgu rkngr{ 'j cf 'pq'ko r cev'qp'y j gj gt'qt'pqv'vj g
r ctvkr cpv'kpenmf gf 'eqo o gpw'qp'ugpvkpeg0O cp{ 'qh'vj g'ur gekgu'ctg'hqwpf 'kp'vj g'Wpkgf 'Ucvgu
dw'mqecvqpu'cni'kpenmf gf 'Uy k/ gtrpf . 'Dgto wf c. Dtc| kn'cpf 'vj g'I cnr ci qu0P qpg'qh'vj g
r ctvkr cpw.'j qy gxgt.'wugf 'vj g'y qtf 'ugpvkpeg'kpf lecvpi 'vj cv'r gtj cr u'vj g{ 'gZR gtlkpeg'cpko cn
ugpvkpeg'y kj qw'j cxkpi 'rgctpgf 'cdqw'vj g'hqto cneqpegr 0F qnd{ 'cti wgu'hqt'vj g'gZR cpukqp'qh
gpvktqpo gpvni'gf wecvkqp'ur gekklem{ 'tgrcvgf 'vq'go r cvj { cpf 'cpko cni'ugpvkpeg'y j lej 'y g'cni'q
tgeqo o gpf 'cu'o cp{ 'r ctvkr cpw'y gtg'pqv'cu'y gmlphqto gf qp'eqpugtxcvq'cpf 'vj g'go gti lpi
rkvgtcwtg'qp'ugpvkpeg'0F qnd{ 'gv'cni'4242-0Gf wecvkqp ur gekk'vq'vj ku'vqr le'dglpi 'i kxgp'r tkqt'vq
eqpf wevpi 'c'uwf { 'uwej 'cu'vj ku'o c { 'j cxg'ko r rdevkqpu qp'tguwmu'cpf 'vgtö kprni { 'wugf 0

Trends in human emotion

Vj g'f cv'eqmgev'f 'uj qy u'vj cv'j wo cpu'gZR gtlkpeg'c dtqcf 'tcpi g'qh'go qvqpu'y j gp
kpvgtcevpi 'y kj 'vj g'rkv'gu'cpf 'ugpvkpv'ur kksu'qhy kf rkhg'cpko cni'0Y j gp'r ctvkr cpw'tgr qtvf
hgrkpi u'qh'go r cvj { 'hqt'pqp/j wo cp'cpko cni'vj g{ 'hgrvy gtg'utwi i rki 'kp'uqo g'y c{.'vj g{
o gpv'kpgf 'j qy 'vj g'cpko cni'utwi i ng'o cf g'vj go 'vj kpmetklem{ 'cdqw'j wo cp'cpf 'pqp/j wo cp

cpko cnlkwgtcevkqpu'cpf lqt'eqpugtxcvkqp0Vj ku'kpf kpi 'tghgeu'vj g'y qtm'qh'*Y cmcej 'g'v'c'0'423: +
k'p'y j lej 'y g'cwj qtu'ucv'vj cv'uwo o qpkpi "eqo r cuukqp ku'ko r qtcv'v'y j gp'y kpnkpi "etk'k'ecm' "cpf
g'y k'ecm' "cdqw'eqpugtxcvkqp0Vj kwgtgukpi n' . 'y g'eqo r cuukqp ugxgtcn'qh'vj g'r ct'v'ekr cpv'u'hgn
kpxqmgf 'c'ugpug'qh'f w'f 'v'q'eqpugt'xg'vj g'rk'xgu'cpf y gm'dgkpi "qh'y k'f r'k'g'cpko cnu'0Vj g'o clqtk'f' "qh
r ct'v'ekr cpv'u'g'zr tguugf 'r qukk'x'g'h'ggnkpi u'k'p'vj g'k' p'ctt'c'v'x'gu't'geqwp'v'kpi 'y g'k'g'zr g't'k'g'pegu'y k'j
y k'f r'k'g'cpko cnu'0Vj ku't'g'p'f 'ku'g'zek'kpi "dw'p'qv'p'gegu'uct'k'f' u'w'r t'k'k'pi 0O q't'g'q'x'g't' . 'u'w'ej 'k'p'f k'pi u
c'h'k'to 'y c'v'ek'k' g'p'v'ek'g'peg'f' t'q'w' u'r t'q'x'k'f' g'g'o q'v'x'g' g'zr g't'k'g'pegu'y t'q'w' j 'g'f' w'ec'v'kpi 'r ct'v'ekr cpv'u'q'p
ko r q't'c'v'p'g'p'x'k'q'p'o g'p'w'c'n'v'q'r k'eu'*R'c'g'eq'g'v'c'f'0'4243+0

Trends in Transformative Narratives

Vj g't'guw'u'h'q'w'p'f 'k'p'vj ku'uw'f { 'ct'g'eqpuk'v'g'p'v'y k'j r t'g'x'k'q'w'u'uw'f { a'k'p'f k'pi u'vj cv
g'zr g't'k'g'pegu'y k'j 'y k'f r'k'g'j' c'x'g'vj g'c'd'k'k'f' "v'q'o q'v'x'c'v'g' j wo cp'c'ev'q'tu'v'q'y c't'f' "go r c'v'j g'v'k'e'c'ev'k'q'pu
v'q'y c't'f' 'y k'f r'k'g'c'p'f "c'h'g'ev'x'g'c'p'f "go q'v'k'p'c'n't'g'ur q'p'ugu v'q'y k'f r'k'g'u'v'ko w'k'*N'c'tu'q'p'g'v'c'f'0'4238=
F'q'nd'f' . "42420N'c'tu'q'p'c'p'f "eq'm'g'c'i' w'g'u'h'q'w'p'f 'y c'v'g'zr g't'k'g'pegu'y k'j 'j' q'w'ug'ur c't't'q'y u'r qukk'x'g'n'f'
c'h'g'ev'g'f' 'r ct'v'ekr cpv'u'v't'g'c'w'o g'p'v'q'h'vj g'ur g'el'g'u' . 'y j lej ku'uw'r r q't'v'g'f' 'd' { 'y g'q'x'g't'y j g'n'o k'pi 'r q't'v'k'p'
q'h'g'zr g't'k'g'pegu'y c'v'q'w't'uw'f { 'h'q'w'p'f 'v'q'd'g'r ct'v'ek'w'c't'n'f' v't'c'p'uh'q't'o c'v'x'g'0'F'q'nd'f' { 'h'q'w'p'f 'y c'v'y t'k'k'pi
c'p'g'u'uc' { 'h't'q'o 'y g'r g't'ur g'ev'x'g'q'h'c'p'c'p'ko c'n'vj g' { 'j' c'f' r t'g'x'k'q'w'u'f' "q'd'ug't'x'g'f' "eq'p't'k'd'w'g'f'
u'k'i p'k'h'c'p'v'f' "v'q'vj g'k'g'p'x'k'q'p'o g'p'w'c'n'g'f' w'ec'v'k'q'p'c'p'f' go r c'v'j g'v'k'e'eq'p'p'g'ev'k'q'p'v'q'c'p'ko c'nu'*F'q'nd'f' .
4242+0Q'w't'uw'f { "eq'p't'k'd'w'g'u'v'q'F'q'nd'f' { a'v'y q't'm'f' { 'u'j' q'y e'c'uk'pi 'y g'r q'y g't'q'h'g'zr g't'k'g'p'v'c'n't'g'h'g'ev'k'q'p'
q'p'j' wo c'p'a'eq'p'eg'r v'k'q'pu'q'h'c'p'f "eq'p'p'g'ev'k'q'pu'y k'j "q'v'j g't'ur g'el'g'u'0H'k'g'g'p'q'h'vj g'44'*8: Ø: ' +
r ct'v'ekr cpv'u'g'k'j g't'ko r r'ek'n'f' "q't'g'zr r'ek'n'f' "t'g'h't't'g'f' v'q'vj g'v't'c'p'uh'q't'o c'v'x'g'p'c'w'w'g'q'h'vj g'k't'y k'f r'k'g'
k'p'v'g't'cevk'q'p' . 'u'w'i i g'uk'pi 'y c'v'k'p'et'g'c'ug'f' 'h't'g's'w'g'p'e' { "q'h'j wo c'p/y k'f r'k'g'k'p'v'g't'cevk'q'pu'j' cu'vj g'r q'v'g'p'v'c'n'
v'q'ko r t'q'x'g'v't'g'c'w'o g'p'v'q'h'q'v'j g't'ur g'el'g'u'0"R'ct'v'ekr c'p'v'38a'u'uc'v'g'o g'p'v'ec'r w't'g'f' 'y g'ug'p'v'ko g'p'v'q'h'
o c'p' { "q'h'vj g'f' t'q'w' a'v'o go d'g't'u'c'v'0Vj g' { 'y g't'g'x'g't' { 'ec'm' c'p'f "ug'g'o g'f' "s'w'k'g'eq'p'v'g'p'v'lw'v'j' c'p'i k'pi "q'w'

qp'vj g'o qwpvcp0Vj ku'gZR gtlgpeg'o cf g'o g'tgcrk g'vj cv'j wo cp'dgkpi u'eqgzku'v'y kj 'cpko cnu'cu'y g
uj ctg'vj g'uco g'gctvj 'y kj 'vj go 0K'r ctvkwct.'tghgtgpegu vq'eqgzku'v'y gtg'j ki j n' r'tgxcrgp0
Vj ku'o c{ 'dg'f wg'vq'j wo cpai'f qo kpcpeg'lp'vj g'pcwctny qtrf . 'qhv'p'ngcf kpi 'vq'ugr ctcvq'p'qh
ur gelgu0'Y j gp'j qo q'ucr kpu'ctg'gpeqwtci gf 'vq'lpvgtcevy kj 'qvj gt'ur gelgu'lp'vj gkt'v' r'lecn
gpv'vj g' ctg'cdng'vq'f geqpuv'wv'vj g'f qo kpcp'vpcwctg/uqekv' 'kf gqni' lecn'f kxkf g0
Cempqy rgi i kpi 'vj g'xcnwg'qh'o wnkur gelgu.'cu'lpvtqf wv'gf d{ 'cwj qtu'Mktmug{ 'cpf
J gm tglej *4232+.'kp'qwt'uj ctgf 'gpv'ku'c'etwecnuvgr 'vqy ctf u'lwuv'r t'gugt'xcv'qp' *Mktmug{
cpf 'J gm tglej . '4232+0' Cp'qxgty j gm kpi 'o clqtkv' 'qh'vj g'gZR nek'v' 't'cpuhqto cv'xg'gZR gtlgpegu
qeewt'gf 'dgy ggp'j qo q'ucr kpg'cpf 'c'ur gelgu'vj g' lpvgtcevy kj 'tctgn'0'Vj ku'o c{ 'uwi i guv'vj cv
ur gelgu'lpvgtcevy'qpu'ctg'o qtg'r qy gthw'vj j gp'vj g' 'eqv'cuv'v' r'lecn'lpvgtcevy'qpu'0'Hqt'gzco r'ng.
Rctv'ekr cpv'4'y tqv'cdq'w'vj gkt'gZR gtlgpeg'y kj 'j wo r' dcemy j crgu'0'Vj g'f c{ 'y cu'qpg'Ky km
hqt'g'xgt'tgo go dgt'y kj 'vj g'tcpuegpf gpv'uqwpf u'qh'y j crgu dtgcej kpi 'pgctd{ 'cpf 'vj g'tgcrk'v' 'qh
y j cv'y g'xg'f qpg'vq'vj gug'y cvgtu'ukp'kpi 'lp.0'0'Vj g r'ctv'ekr cpv'tgr qt'v'gf 'vj cv'vj g'gZR gtlgpeg'j cf 'c
f'kt'gev'lo r'cev'qp'vj gkt'y qtm'cpf 'eqv't'kdw'k'q'vq'eqpugt'xcv'qp' kpk'k'v'x'gu'0' Cf'f'k'k'q'p'cm{ . 'ej ctkuo cv'le
gZR gtlgpegu'y kj 'cpko cnu'o c{ 'j cxg'vj g'r'qv'p'v'cn'vq' dg'o qtg't'cpuhqto cv'xg'0'Rctv'ekr cpv'33
eqppgevgf 'y kj 'c'f'gg'0'K'v'dt'qwi j v'o g'emugt'vq'y kf'rhg' cpf 'K'hn'o qtg'eqppgevgf 0K'v'ugcf 'qh'l'wuv
qdu'gt'x'kpi 'vj ku'cpko cnu'qo 'vj g'lp'v'kf'g.'Ky cu'cewcm{ o c'kpi 'g'g'eqp'cev'cpf 'dgkpi
cempqy rgi i gf 'd{ 'vj ku'f'gg'0'J wo cpu'o c{ 'dg'o qtg'eqppgevgf cpf 'o q'v'x'cv'gf 'vq'r' tqv'ev'ur gelgu
vj cv'gzj kdk'j wo cp'rhg'hcw'wt'gu'0'Vj g't'gu'w'u'uj qy 'vj cv'vj gug'lpvgtcevy'qpu'ctg'lo r'qt'v'p'v'ht
k'p't'q'f'w'ekpi 'o wnkur gelgu'eqppgevgf'cpf 'ug'p'v'k'peg'0 Vj ku'uwf { 'y cu'ur gel'k'ecm{ 'lpv'gt'g'v'gf 'lp'vj g
gh'gev'qh'vj gug'lpvgtcevy'qpu'qp'r'gtur ge'v'x'gu'qh'eqpugt'xcv'qp=j qy g'xgt. 'qpn' 'h'x'g'gZR gtlgpegu'j cf 'c
f'kt'gev'v' r'qu'k'x'g'lo r'cev'qp'vj g'r'ctv'ekr cpv'v'eqpugt'xcv'qp' kpk'k'v'x'gu'0'Vj gug't'gu'w'u'uw' i guv'vj cv
vj gtg'ku'c'ecw'ucn'gh'gev'qh'y kf'rhg'lpvgtcevy'qpu'qp'j wo cpai'r'gtur ge'v'x'gu'qp.'go q'v'k'p'u'uj ctgf 'y kj .

tgugtej 'hqt cv'etgcv'cp'k'pvtcevxg'cpf 'o gcpkpi hwi'gZR gtlgpeg'hqt'yj g'r ctvkr cpw. 'k'ecp'dg
kpetgf kdn' 'tcpuhto cvxg'hqt'yj g'tgugtej gtu'cu'Tlej ctf uqp *4223+'j ki j rki j w'cpf 'f'kuewugu'cv
ngpi yj 'kp'j gt'y qtn0Cffkkqpcmf. 'wukpi 'c'pqp/tcpf qo eqpxgpkpeg'uco r ng'etgcvf 'c'f'kxgtug
r ctvkr cpv'dcug0Vj g'r ctvkr cpv'r qqr'ku'eqo r qugf qh'cm'ci gu'qxgt'yj g'ci g'qh'3: . 'dqy 'eqmgi g
cpf 'pqp/eqmgi g'uwf gpw. 'cpf 'c'o kz'qh'Dquvq'Eqmgi g cpf 'pqp/Dquvq'Eqmgi g'eqo o wpkf
o go dgtu0J cxkpi 'c'f'kxgtug'i tqwr 'qh'r ctvkr cpw'r tqxkf gf c'y kf g'tcpi g'qh'k'pvtg'w'lp'y kf rkg.
r gtur gevkgu. 'cpf 'gZR gtlgpegu'y kj 'y kf rkg0Wukpi Hcegdqnm'cu'yj g'ej qugp'r r'v'hto 'hqt
eqpf wvki 'y ku'tgugtej 'cmqy gf 'yj g'r ctvkr cpw v' hqugt'eqppgevku'y kj 'gcej 'qy gt'cpf 'yj g
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r r'v'hto 'r tqxkf gu'c'pgy 'eqv'kdwkp'v'eqo o wpkf dwkf kpi 'k'eqpf wvki 'gy pqi tcr j le.
pcttcvxg'tgugtej 0Vj g'tgugtej gtu'r qugf 'gf wecvkpcnxf gqu'qy ctf u'yj g'gpf 'qh'yj g'f'cv
eqmgevku'r tqegu'v'k'p'hto 'yj g'o go dgtu'qh'yj g'i tqwr qh'yj g'tgcuqpu'hqt'yj g'tgugtej 'cpf
gZR r'k'kpi 'hg' { 'eqpgr w'lp'yj g'pqp/j wo cp'cplo cntgugtej ur ceg0Vj ku'cmqi 'y kj 'yj g'k'p'wukp
qh'r gtuqpcn'pcttcvxg'ku'lp'yj g'o cpwetr v'cmqy gf 'yj g' tgugtej gtu'v'eq/etgcv'yj kj 'yj g'r ctvkr cpw
cpf 'gcej 'qy gt'yj tqw j 'yj g'eqv'kdwkp'qh'r gtuqpcncpgef qv'g'0Ukwc'kpi 'yj g'tgugtej gtu'yj kj k'p
yj g'pcttcvxg'ur ceg'cu'qr r qugf 'v'c'r w'g'qdugtxcv'kpcncpf 't'g'k'g'cv'xg'tqrg'ku'y j cv'o cngu
pcttcvxg'tgugtej 'cpf 'gy pqi tcr j { 'wps wg'cu'p'qygf d { 'D'p'k'ej /Dt'gf'p'ej '*423: +0Y j cv'ugw'qwt
uwf { 'cr ctv'ku'yj g'eqv'kdwkp'qh'qwt'x'q'legu'lp'yj g' tgugtej 'ur ceg'v'gf wecv. 'k'p'hwpeg. 'cpf
go qv'cmqi ukf g'r ctvkr cpw'lp'v'wg'ugp'k'p'v'hto 0Vj ku'uwf { 'y cu'rti gn' 'cp'qtki k'p'cntgugtej
o gy qf 'f'guki p'yj lej 'cmqy gf 'yj g'tgugtej gtu'v'ck'qt yj g'r tqegu'v'ur gek'k'f'gukt'gf 'qweqo gu
cpf 'ko r'k'cv'k'p'pu'hqt'yj g'tgugtej gtu. 'r ctvkr cpw. cpf 'rti gt'h'gn' 'qh'y kf rkg'tgugtej 0

Limitations

Y j krg'vj g'f guki p'qh'vj ku'uwf { 'qhhgtgf 'o cp{ 'dgpghku'v'vj g'tgugctej . 'vj gtg'ctg'ugxgten cur gew'vj cv'bo c{ 'hko k'vj g'cdkxk{ 'v'hqto 'f ghpkxkg'cpf 'i gpgtcrk cdr'eqpenwukpu0' Cnj qwi j gzvpxkg'ghqtu'y gtg'vcngp'v'kpxkg'kpvgtguvf r ctvlekr cpw'v'vj g'i tqwr . 'vj g'ukl g'qh'vj g'uco r ng y cu'uqo gy j cv'uo cm'y kj 'qpn{ '44'qh'64'v'vcl'j wo cp r ctvlekr cpw'uj ctkpi 'vj gkt'gZR gtlkpegu'y kj vj g'i tqwr 0'Vj g'uo cm'ukl g'qh'r ctvlekr cpw'cmqy gf hqt'o qtg'gzvpxkg'cpf 'kpenwukg'cpcn{ uku'qh pcttcvkgu=j qy gxgt. 'vj g'uco r ng'bo c{ 'pqv'dg'tgr tguvpxkg qh'vj g'i tgcvt'j wo cp'r qr wvckp0 Cffklqpcn{. 'vj g'uco r ng'y cu'qxgty j gm kpi n{ 'hgo crg. y kj 'qpn{ 'qpg'o crg'r ctvlekr cpw'Vj g'xcuv o clqtk{ 'qh'r ctvlekr cpw'*99049' -'ctg'eqngi g'uwf gpw0Uq. 'vj g'hpf kpi u'o c{ 'dg'r tko ctkl{ i gpgtcrk cdr'v'v' hgo crg'eqngi g'uwf gpw0k{ 'kpenwukgpguu cpf 'F kxgtuk{ 'k'Ekkl gp'Uelkpeg.ö Rcrgeq'cpf 'eqngci wgu'utguu'vj g'tqrg'qh'ekkl gp'uelkpeg k'r tqf wvckpi 'hpqy rgi g.'y j kej 'y g.'cu tguvctej gtu.'etgcvg'vj tqwi j 'qwt'htco kpi 'qh'qwt'pcttcvkgu cpf 'vj g'r ctvlekr cpw'y g'kpenw'g'Rcrgeq gv'cr0'4243+0k{ 'vj g'r tqeguu'qh'qwt'tgugctej . 'qwt i tqwr 'j cu'go dtcegf 'uwlgevkg'gZR gtlkpeg= j qy gxgt. 'k'ku'ko r qvcpv'v'tgeqi pl g'vj cv'qwt'kf gpv{ cu'hgo crg'eqngi g'uwf gpw'eqvtdwgf 'v'c nguu'vj cp'kpenwukg'uco r ng0Ncuw{. 'vj g'qr gp'gpf gf pcwtg'qh'vj g'r tqo r v'rgf 'v'f khhgtpegu'k eqpvgpv.'hko kpi 'vj g'tgugctej gt'æ'ecr cek{ 'hqt'f kgeveqo r ctkuq'qh'r ctvlekr cpv'gZR gtlkpegu0

Implications

Vj tqwi j qw'qwt'uwf { . 'qwt'kpvkqp'y cu'v'v' hqewu'qp eqppgevki 'r gqr ng'ctqwpf 'vj g'kf gc'qh r tqgevki 'qwt'uj ctgf 'gpxkqpo gp0Y g'clo gf 'v'kpuvcp'go qvqpcn'cr r tqcej 'v'tghngevku'qp y kf rkg'kpvgtcevku'cpf 'd{ 'uq'f qkpi . 'uj gf 'hki j vqp'vj g'tgrvku'p'j kr 'dgy ggp'r ctvlekr cpwø wpf gtuwcpf kpi 'qh'pqp/j wo cp'cpko cn'ugpvkpeg'cpf 'vj gkt qr kpkpu'qp'eqpugtxcvku'cpf dkqf kxgtuk{ 0Dcugf 'qp'qwt'tguwuu. 'k'p'y j kej 'r ctvlekr cpw tgcf kn{ 'uj ctgf 'c'y kf g'xctkgy{ 'qh vj qwi j vhwlpcttcvkgu'cdqww'vj gkt'gZR gtlkpegu'y kj y kf rkg'vj cv'go dtcegf 'vj gkt'go qvku'cpf

eqo o wplv{ 'eqwf 'uwf { 'y j cv'y g'o quv'ghgevxg'y c{ u'ctg'vq'lpetgcug'cpf 'o clpvkp'gpi ci go gpv
 co qpi 'r ctvkr cpw'y kj 'vj gug'vqr leu0Hwwt g'tgugctej gtu eqwf "gxr mtg'kh'uj ct'kpi 'ctvkr gu.
 Htgs wgpw{ 'eqo o gpvki 'cpf 'rknpi 'r quw.'r tqxkf kpi pgy 'r tqo r w'qt "qyj gt"eqpvgpv'tgi wactn{.'wukpi
 ðNkxgö'hgcwt gu'qt "qyj gt 'hcegu'qh'yj gug'uqekn'pgy qtnkpi r rlvhcto u'y qwf "dg'yj g'o quv'uweeguuhwn
 utcvgi kgu'vq'uwuxkp'c'nqpi /vgtó "cpf 'vki j vmpk'eqo o wplv{ ctqwpf 'vj gug'kf gcu0

References

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 Sociology*. 42*4+."383/39; 0

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 3205; 2 kpk 322396

F kl | . 'Ucpf tc0ðWP 'Tgr qt v<'P cwtg'u'F cpi gtqwu'F gerkpq)Wpr tgegf gpvgf)=Ur gelgu'Gz vkevqp
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 P cvkpu.'8'O c { '423; .
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 hqt'qdugt xgt'dlcu'lp'ekk gp'uekpeg'o qpkqt kpi 'qh'cp'gxr cpf kpi 'hcti g'o co o cnl'qr wrcvqp0
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pgy 'r quidkrlkgu0Journal of Environmental Education. 50*668+:'62566370
[j wr u<l f qkQti B2B2: 2I2; 7: ; 860423; B8: 9633](#)

Lcpg'I qqf cni'kpukswg'P gy '\ gcrpf 0\$Cplo cni'Ugpkpeg\$. F ge'3; . '423; .
[j wr u<l y y 0 qwwdg0eqo ly cvej Ax? qOm I uP 9IZK hgcwtg? go da vkr0](#)

Mktmg { 'UO('J gm tglej . 'UO*4232+0Vj g'Go gti gpeg qh'O wnkur geku'Gvj pqi tcr j {0E wmwtn
Cpj tqr qmji { . '47*6+:'767/7980

Nctuqp. 'Nkpeqp' T0Ectgp' D0Eqqr gt('O ctni'G0J cwdgt *4238+'Go qvqpu'cu'F tkxgtu'qh'Y krf rkhg
Ugy ctf uj kr 'Dgj cxlqt<'Gzco klpki 'Ekkk gp' Uelgpeg'P guv O qpkqtu' Tgur qpugu'vq' kpxcukxg
J qwug'Ur cttqy u. 'J wo cp'F ko gpukqpu'qh'Y krf rkhg. '43-3. 3: /55. 'F QK

O cplhtgf q. 'O l0'Vgnn' VN0'F qp'Ectnqu. 'C0Y 0'Uwnkxcp. N0'Dtki j v' C0F 0'F kgvej . 'C00 0
Dtwnmqwt. 'L0'cpf 'Hwnqp. 'F 0*4242+'Vj g'ej cpi kpi uqekqewmwtn'eqpvzv'qh'y krf rkhg
eqpugtxcvqp0Eqpugtxcvqp'Dkqmi {0f qk32B333 lqdkB56; 5

Rcrgeq. 'E0'Rgvt. 'U0I 0'Ugqcp. 'P 0'U' Mewho cpp. l0('Cti {tk' R0*4243+0'kpenwukxgpguu'cpf
F kxgtukx' k' Ekkk gp' Uelgpeg'0Vj g' Uelgpeg'qh'Ekkk gp Uelgpeg. '483/4: 40

Tlej ctf uqp. 'N0*4223+0I gwkpi 'r gtuqpcn<'Y tkkpi /uqtkgu0kpvtpcvkpcn' Lqwtpcn'qh'S wcrkcvkxg
Uwf lgu'lp' Gf wecvkp. '36*3+:'55/5: 0

Ueqw. 'F cy p' O 0'gv'cni'0\$Ur cvkn'F kntkdwkqp'qh'Ucteqr vke O cpi g'Ucteqr vgu'uecdkxk'lp' Wtdcp
Hqz gu'Xwr gu'xwr gu+'lp' I tgcv'Dtkckp'cu'F gvto kpgf d { 'Ekkk gp' Uelgpeg\$' Wtdcp
Gequ { ugo u'4507 '*4242+<'3349/620RtqS wgu'0Y gd09 Qev'042420

Vtngxu. 'C0'gv'cni'0Lxuv'Rt gugtxcvqp0'Dkqmi kecnEqpugtxcvqp. 'xqr044; . '423; . 'r r 0356663.
f qkj wr u<l f qkQti B2B238 l0kqeqp0423: B3B3: 0

Y crnej . 'Ctkcp' F 0'gv'cni'0\$Uwo o qkpi 'eqo r cuukqp'vq cff tguu'y g'ej cmgpi gu'qh'eqpugtxcvqp0\$
Eqpugtxcvqp'Dkqmi { '54B '*423: +<'3477/34870

.. | f go kt. 'Xwtcni'0*4242+0Qpg'P cwtgö<'C'P gy 'Xqecdwrnt { cpf 'Hico g'ht' I qxgtcpeg
kppqxcvqp'lp' RquvEqxkf /3; 'Rrpgvct { 'J gcrnj 0C' Lqwtpcn qh'kvgi tvkxg'Dkqmi { . 'xqr046B3

Appendix A.

Recruitment and Informed Consent Message (Sent to participant after joining the Facebook group)

Vj cpm{ qwhqt "{ qwt 'kpvgt gu'kp'r ctvek r c'kpi 'kp'qwt uwf {0Vj tqwi j 'y ku'tgugctej 'y g'j qr g'v'gdwgt wpf gtucpf 'y g'y c{u'j wo cp'hggkpi u'cdqw'cpko cni'ugpvkpeg cpf 'go qv'kqp'ecp'ko r cev'y g vgcwo gpv'qh'cpko cni'cpf 'cwkwf gu'cdqw'eqpugtxcv'kqp0

Ki{ qw'ci tgg'v'cng'r ctv'kp'y ku'uwf {."{ qw'y kndg'cungf 'v'uwo k'r gtuqpcn'cpgef qv'gu'cdqw"{ qwt kpvgtcev'kpu'y kj 'y kf rkhg0K "{ qwt 'tgr qpugu'y g'gpeqwtci g { qw'v'gh'gev'qp "{ qwt go qv'kpcn'eqppge'kqp'v'y kf "cpko cni'cpf "{ qwt 'kpvgr tgv'kqp qh'cpko cni'go qv'kqp0Y g y greqo g'y g'uwo k'kqp'qh'pette'v'xgu.'r j qvi ter j u. xkf gqu'cpf lq't'cwf kq'tgeqtf kpi u'qh { qwt 'kpvgtcev'kpu'y kj 'y kf rkhg0

Y g'ctg'j qr kpi "{ qw'o c{ 'dgpgh'htqo 'dglpi 'kp'y ku'uwf { cpf 'kp'y g'eqo o wpk' 'etgcvf 'y tqwi j qwt'r r'v'htqo 'y j lej 'y kn'hqugt'o gcpkpi hwi'eqpxgtucv'kpu cdqw'r ctvek r cpwø j wo cp/cpko cni'kpvgtcev'kpu0Vj g'tgugctej gtu'j qr g'v' i gpgtcv'npqy rgi g'cdqw'y g'tqng'qh j wo cp'w'pf gtucpf kpi 'qh'ugpvkpeg'kp'eqpugtxcv'kqp'r tcev'egu y cv'o c{ 'dgpgh'v'uekgv'0

Vj g'tgeqtf u'qh'y ku'uwf { 'y kn'dg'ngr v'r tkxcv'g0K cp{ 'uqtv'qh'tgr qt'v'y g'o c{ 'r wdrkuj . 'y g'y kn'pqv kpenf g'cp{ 'kphqto cv'kqp'y cv'y kn'o cng'k'r quukdng v'k'f gpv'kh{ "{ qw'kh{ qw'y kuj 'v'tgo clp cpqp{o qwa0Ki{ qw'j cxg's wgu'kpu'cdqw'y ku'tgugctej . { qw'o c{ 'eqpvcev'lgppk'ht'Uej cwt. lgppk'ht'ngm{GB deQf w.'839/774/63520

D{ 'v'r kpi "{ qwt 'hwn'pco g'kp'y ku'vz'v'dqz."{ qw'ctg ci tggkpi 'v'dg'kp'y ku'uwf {0O cng'uwg'g'q