**ALLINTERACT**

FOCUS GROUPS – RAW DATA

May 2022

**Icon

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**Project Number:** 872396

**Project Acronym:** ALLINTERACT

**Project title:** Widening and diversifying citizen engagement in science

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# GENDER

## Control Groups

Control groups in gender include three focus groups: 1 group with women (including Young women), 1 group with the LGBTI+ community and 1 group with women (including vulnerable women).

### Women (including young women)

|  |  |
| --- | --- |
| 14th October 2021 | Participants:   * Ricercatrice * Participants: A, M, C, S, G |
| 18h30 |
| Online (Webex) |

Introduzione del progetto da parte delle due ricercatrici.

Ricercatrice: Ci sono esempi sui social media su come i cittadini possono trarre vantaggio dalla ricerca per promuovere campagne sociali o anche forme di attivismo su problemi sociali. Per esempio sulla questione del bullismo. Sono state fatte tante ricerche sul tema e anche grazie a queste ricerche sono state fatte queste campagne. Che ne pensate di questo?

A: Per quanto riguarda il mio campo, sì, mi capita di farlo (i.e. di trarre vantaggio dalla ricerca per promuovere campagne), soprattutto in concomitanza di date particolari che riguardano l’informazione alla società sulla violenza di genere, quindi 25 novembre, 8 marzo, oppure l’adesione a campagna, per esempio Change.org che ne fa tantissime. Queste possono essere le occasioni. Tra i followers di riferimento… l’approccio è superficiale, si leggono i titoli delle campagne e poi si decide. Io questo approfondimento faccio fatica a vederlo.

Ricercatrice: notizie che riportano dati o riferimenti ad articoli che poi diffondi… poi le persone seguono quello che scrivi o la campagna che stai seguendo, senza andare alla fonte.

A: Sì, a meno che non ci sia un riepilogo molto succinto, ma efficace del contenuto, della pubblicazione a cui faccio riferimento, per cui spesso è difficile aprire un dibattito o a un confronto serio perché ci si limita a una lettura molto superficiale.

Ricercatrice: altre persone hanno la stessa esperienza o un’esperienza diversa?

M: Io seguo quelle che sono più attinenti all’attivismo femminista, oppure quello che hanno a che fare con il mio lavoro di storica, soprattutto storia contemporanea. Per quanto riguarda quelle legate alla violenza, io mi sono posta sempre in modo critico ovvero guardando le campagne con la lente di chi studia e facendo un po’ le pulci. Quindi quello che mi divertivo a fare era trovare gli errori in alcune campagne, per es. l’8 marzo come festa e non come giornata di lotta e il racconto distorto della violenza. Però quelle che ho appoggiato e ho cercato di diffondere penso che abbiano avuto un impatto rispetto alle persone che ho intorno. Il mio bacino è molto selezionato e fatto di molte persone affini e sensibili, quindi ho una visione distorta. Quindi, da una parte ci sono persone che lottano insieme a noi, dall’altra non è il mondo reale. Su quello che c’è fuori, vedo che c’è tanta disinformazione, tanta superficialità, leggerezza e forse ci sono canali dove l’adesione a una campagna sia un click. Ci si sente di aver fatto qualcosa solo perché si è condiviso sui social, e questo fa perdere tutto quello che significa. Aderire a una lotta, l’impegno non deve essere legato a un click.

Ricercatrice: quindi secondo te il grado di consapevolezza è basso fuori.

M: nel mio piccolo gruppo è alto perché parliamo la stessa lingua, al di fuori il margine di consapevolezza è diverso.

Ricercatrice: consapevolezza del tema o di andare a guardare le fonti?

M: entrambi (i.e. ossia c’è poca consapevolezza del tema della violenza e di andare a guardare le fonti) e anche soprattutto di cosa significa aderire a una campagna e avere un impegno sia civile, sia politico, in generale.

C: Mi stavo chiedendo come mai non avessi iniziato un Change.org. Ho partecipato e partecipo come casa delle donne o sostengo le iniziative delle altre campagne e forse anche io sono un po’ meno propensa a iniziare qualcosa o guardare dal basso il fenomeno e mi fido delle mie compagne e mi chiedo quanto possa essere utile per le altre, per il mondo reale.

Ricercatrice: Quindi tu dici che non vai tanto a guardare perché le persone che ti condividono quella cosa sono fidate.

S: Io devo dire sono un’utente passiva, io non promuovo quasi mai niente; quello che seguo sono quei post pubblicati dalla casa delle donne, da associazioni… poi il resto sono molto scettica… quando vedo articoli vari, dovrei andare a vedere la fonte; quindi, sono un po’ apatica e pigra. Sono convinta che molto di quello che passa sui social media sia fasullo. A volte, vai a cliccare sopra e dietro non c’è niente. Sì, ci sono le solite cose promosse da change.org, quello va bene, le seguo, ma in maniera del tutto passiva.

G: Anche io non vado a cercare la fonte. Non frequento poi tanto i social. Ho fatto delle campagne, però non so se si possano legare all’ambito scientifico perché erano più audio-visive. Per es. con la casa delle donne, abbiamo fatto una campagna fotografica per il 25 novembre. Alla fine, abbiamo usato immagini per rendere un concetto.

Ricercatrice: sull’attendibilità delle fonti volete aggiungere qualcosa? Prima C. diceva che non c’era tanta attenzione. Vi ritrovate?

M: Io sono una di quelle che va a vedere, un po’ per scrupolo personale, perché la ricerca delle fonti, è il mio mestiere; quindi quando ho un articolo di giornale, o qualcosa che interessa particolarmente su cui deve studiare e deve fare ricerca, non una lettura da divano, ma una lettura che mi interessa vado a vedere le fonti; al di fuori vedo che questa ricerca non c’è. Mio papà a volte mi manda link di articoli assurdi e allora io gli dico: “Papà, stai attento!”. Gli dico di non credere a tutto, soprattutto in una fascia di persone che erano abituati a “quello che leggo è vero”, quindi se lo leggo sui giornali c’è una certa autorità. Questo è scappato un po’ di mano.

A: anche io cerco di farlo e adesso mi ricollego a quello che dice M. Sono d’accordo che ha sostituito quello che prima erano i giornali e poi la televisione. Beh, se l’hanno detto in tv. Per una certa fascia di età, i cosiddetti boomers… adesso va tanto di moda questo termine, usato da me senza essere dispregiativo. Io cerco di far riferimento il più possibile a fonti credibili, se no evito di pubblicare a qualsiasi cosa, cerco di non contribuire all’ammasso di spazzatura che si trova sui social.

C: A me viene in mente quei link… delle persone che ti mandano non solo un link, ma dieci e si vede che hanno fatto già una ricerca personale e che cliccando lì vieni portato in un mondo misterioso. È stato già selezionato dalla persona. Più sono i link, meno sono attirata. Mi sembra già assuefatta quella cosa. Cerco delle fonti semplici e di fare una selezione. Lasciandomi portare dal mio istinto e dalla mia intuizione.

Ricercatrice: Ovviamente con i social è cambiato il modo in cui, come dice C., si comunica ed è cambiato il modo di giustificare una certa notizia. Rispetto a 10 anni fa, un batter di ciglia rispetto al tempo della storia, il modo di pubblicare queste notizie e la giustificazione è cambiata.

M: Secondo me, è così, è corretto.

Ricercatrice: bisognerebbe capire come sono attrezzate le persone. Le persone come noi siamo in grado di fare un quadro… la maggioranza non è in grado, specie i giovani. Le conoscenze scientifiche partono svantaggiate.

S: Adesso, in base alla mia esperienza, quello che posso dire è che con tutti questi social è più facile informarsi, ma senza nessuna certezza su quello che leggiamo, senza nessuna cognizione scientifica. Vedo la fonte, mi sembra attendibile, la leggo. Poi da lì passo ad altro e ad altro ancora per poi perdermi nel mare delle informazioni. Allora cerco di tornare indietro e quello che ottengo è che ho un sacco di dubbi. La mia è solo una cosa superficiale, non è che ho proprio una conoscenza scientifica delle varie cose, ho un po’ di cultura su alcune cose, sul mio settore, meno su altro… trovo che sia un oceano di nozioni messe lì.

Ricercatrice: Vi è mai capitato di chiedere di giustificare il punto di vista chiedendo la fonte? Dove lo hai letto, chi te lo ha detto?

S: no, non lo faccio come principio, lascio fare, e magari mi faccio un’opinione della persona che lo ha condiviso.

C: succede spesso quando una notizia viene considerata dopo una *fake news*… magari le persone l’hanno condivisa, poi uno arriva e dice: “No, guardate che non è una cosa vera!”. Tutti si svegliano e dicono “Io avevo sentito, ma sono andata avanti”. Dalla mia esperienza mi è capitato che una signora mi ha portato un’enciclopedia e io di solito nel luogo di lavoro non le prendo perché occuperebbero un sacco di spazio. In quel caso, però l’ho presa, perché avendo dei bambini che fanno dopo scuola in quello spazio mi è venuto in mente di fare loro vedere come si faceva una volta la ricerca. Loro hanno 12 anni e sono tutti con il telefono e vanno subito su google. Non è che ho avuto grande successo… a parte il colore verde, perché il telefonino è così facile da usare! Quindi, è cambiato tanto, non so se sia meglio o peggio, non siamo in grado noi di dirlo, siamo solo nel grande movimento dell’universo.

A: Il modo è sicuramente cambiato nel senso che… secondo me c’è una leggerezza maggiore e una sfrontatezza nel ritenersi esperti di tutto solo perché si sono trovate fonti assolutamente non attendibili e si spiattellano mentre in passato chi non aveva niente da dire sull’argomento e non aveva voglia di andare a cercare semplicemente non esprimeva quella che era una non-opinione. Adesso, digitando sui motori di ricerca la propria teoria si trova come risultati tutto ciò che la conferma, tutti si sentono titolati a dire la propria e ritenerla giusta. Io in passato mi prendevo la briga di smontare una per una le cose che mi arrivavano… ora francamente no, perdita di tempo. Il fine ultimo non è informarsi, o mettere in discussione i propri punti di vista, anche quando le evidenze scientifiche dimostrerebbero il contrario.

Ricercatrice: L’altro tema riguarda il tema delle donne nelle STEM. Come forse saprete ci sono poche ragazze che si iscrivono nelle STEM. Giusto per darvi un’idea, il totale dei laureati STEM è circa il 30%, le donne sono neanche 2 su 10 e gli uomini 4 su 10, per l’informatica ancora meno. Quello che si fa è di smontare i luoghi comuni nella scienza per favorire le iscrizioni. Cosa ne pensate? Avete esperienza?

S: io posso riportare l’esperienza di mia figlia che è iscritta a ingegneria elettronica. Sono due femmine su 40 uomini. La sua vita non è facile. Pur essendo una ragazza molto studiosa deve sempre dimostrare più degli altri, perché a lei chiedono “quanto ti manca” e non “cosa hai fatto”, pur essendo lei in pari. Magari la gente che glielo chiede è indietro di non so quanti esami. Questo lo vive male e noi con lei. La cosa importante è che ci fossero delle persone informate che andassero nelle scuole superiori che invogliassero queste ragazze e che dicessero loro che sono uguali agli uomini, anzi direi che le ragazze sono pure più sveglie, hanno sempre una marcia in più. Io vedo che queste due ragazze sono in pari con gli esami e sono più avanti di altri che frequentano il corso. Questa è la mia esperienza personale.

A: Io posso raccontare la mia di esperienza, perché ci sono rimasta un po’ fregata all’epoca. Io alle medie ero molto brava a scrivere quindi giravano gli elaborati e i temi che facevo, però ero anche brava in matematica, ma questo non veniva considerato. Quindi è stata spinta molto questa cosa, quindi liceo classico e quindi ciao a tutte le materie scientifiche… se avessi avuto davvero quel tipo di interesse forse più in là lo avrei coltivato. Io nella mia testa mi sono ficcata che ero brava nelle materie letterarie, quindi il resto è venuto da sé. Io ho l’impressione che questa sia l’esperienza di molte ragazzine. Al liceo classico sono tutte donne.

Ricercatrice: In termini di iniziative?

A: Io direi una bella sensibilizzazione sugli insegnanti a partire dalle medie. Valorizzare le competenze che non si attribuiscono alle ragazzine. Non so se la situazione ora è la stessa, magari oggi le cose sono diverse. Però la sensibilizzazione degli insegnamenti dalle medie. Alle superiori i giochi sono fatti. Valorizzare dove si vedono delle inclinazioni forti.

M: Io ho fatto il liceo scientifico e poi mi sono iscritta a storia. Questo è stato l’incontro di una passione grazie a un insegnante che è riuscita a farmi capire il valore della storia. Chi ha continuato la carriera scientifica… ecco lì non ci sono state tante differenze di genere. Sono pochi quelli che hanno continuato con studi scientifici. Questo problema però è palese. Secondo me si possono fare due cose: la formazione degli insegnanti per smontare gli stereotipi, perché loro stessi sono portatori e portatrici degli stereotipi. Si accompagnano le bambine o le ragazze… si sottolineano delle qualità rispetto ad altre. Io partirei dall’infanzia. Certamente giocare con le costruzioni o con le bambole porta a formare l’idea adulta di te, questo è innegabile. Nelle buone pratiche, anche far vedere che la scienza non è stata sempre solo appannaggio di uomini. C’è un passato di scienziate che possono benissimo stare all’altezza degli scienziati nei libri di testo, quindi questo fa coraggio alle ragazze che vogliono seguire quella carriera. Non sono io che apro una strada, ma seguo una strada che altre hanno aperto prima di me. E questo è più tranquillizzante, più incoraggiante.

G: Sono d’accordo. La matematica andrebbe insegnata meglio… io sono una di quelle che dico che senza la matematica la vita sarebbe più bella! Però molto spesso la gente abbandona queste materie perché non si hanno dei professori che si mettono e te la spiegano bene, o comunque… non stanno a perderci tempo sul singolo studente. Se hai capito, bene, se no ti prendi 4. In più, mi ricordo… ci sono delle scuole dove ci vanno solo i maschi, tipo l’ITIS. Alle medie, c’era questo stereotipo che le ragazze che andavano lì erano delle “poco di buone”, andavano lì solo perché c’erano i maschi, quando andavo alle medie. Può essere… una ragazza potrebbe essere intimidita a scegliere una disciplina. In più, molto spesso che se studi materie scientifiche molti uomini non ti prendono sul serio e tendono a spiegarti cose che sai già.

Ricercatrice: cosa potrebbe aiutare?

G: Se veramente ci si perdesse più di tempo a spiegare, così si assimilerebbero. Secondo me la gente sarebbe meno intimorita a studiare le materie scientifiche. Se io non capisco la matematica delle superiori come posso studiarla all’università?

Ricercatrice: C. ti vedo scuotere la testa.

C: Mi viene in mente quanto il contesto sociale conta. Io mi occupo anche dei bambini stranieri e vedo che parte degli insegnanti danno l’indirizzo a questi ragazzi che sono meno dotati dal punto di vista del contesto sociale, sono meno spinti, hanno meno chance per poter arrivare a un buon liceo. Molte volte capita che i genitori e anche i bambini prendono come buono il consiglio degli insegnanti. Questo ha a che fare sia con i maschi che con le femmine. C’è la categoria dei bambini che non sono abbastanza integrati. Come le donne, di cui sta parlando G. Dobbiamo essere molto attenti, c’è poca attenzione… c’è un pregiudizio di base che probabilmente porta alle scelte delle famiglie in contesti sociali più svantaggiati. Il fatto che anche per me l’immagine del genio che si occupa della scienza lo consideriamo portatore di cose che noi non siamo in grado di fare è un maschio… quando è venuto nel mio liceo è venuto un ragazzo che era un po’ atipico e tutti dicevano: “Ah, questo è un genio”. Volendo prendere dalla mia memoria… sarebbe successo anche con una donna? Sì, le donne sono brave, tutte. Ma nessuno mi ha detto: “ma quella è un genio”. Mi manca questo.

Ricercatrice: Volevo condividere quello che succede in Islanda all’avanguardia dal punto di vista di genere. Lì sembra che ci siano più ragazze nell’area STEM che ragazzi. Quindi conta il clima sociale (insegnanti, media, di femminicidi…). L’Islanda viene studiata da questo punto di vista. Più c’è uguaglianza, più le differenze vengono enfatizzate. Qui si può andare sulla questione degli stereotipi di cui dicevamo.

Ricercatrice: Sul tema del genio mi è venuta in mente un’altra cosa. Si è visto che rappresentare gli scienziati/e facendo riferimento a quello che fanno quotidianamente o riportando i volti umani delle persone aveva aiutato certe istituzioni (musei) avvicinare la cittadinanza. I musei su Istagram avevano pubblicato post con volti umani, non da geni, ha avvicinato la cittadina nza alla scienza.

C: Sto seguendo un podcast di un giovane ragazzo rumeno sulle neuroscienze. È riuscito in due anni… adesso è stato preso anche dal Ministero dell’insegnamento rumeno a fare anche delle ricerche ed entrare nelle scuole. Attraverso 25 minuti di podcast sulle neuroscienze ha avuto un sacco di successo. È utile, è straordinario. Questo ha a che fare con il fatto che sa esprimere le cose in parole semplici che anche il nonno di 90 anni o il ragazzo di 12 viene rapito. È bravissimo. Quel ragazzo è geniale. È una persona normale. Ma per il fatto di aver saputo questa idea è fuori dal comune. Ha saputo portare una cosa lontana a tutti.

Ricercatrice: cosa ti ha colpito di questo ragazzo? In termini di linguaggio.

C: Il messaggio è chiaro, è pieno di info scientifica, ma è a livello di chiunque. Questo non è facile con le neuroscienze. La semplicità. La passione che mette. La modalità di voler trasmettere.

M: Certamente quello che diceva Carmen è vero. Rendere semplice la complessità senza semplificare è una grandissima dote che ti avvicina a quei temi che per stereotipo sono troppo complesse per noi. Avere delle persone così avvicina chi è estraneo. Rispetto allo stereotipo maschile e femminile ho fatto caso… la pandemia ha portato in tv delle scienziate molto brave. E già questo è importante. C’è un’autorevolezza femminile. Io mi immagino le ragazze mentre mangiano con i genitori guardano la tv e dicono: “Ah quella è una scienziata. Forse anche io potrei farlo”. Il fatto di vederle, di prendere parole e la scena. Non sono quelle dietro, ma sono loro le scienziate.

Ricercatrice: In termini di stili di comunicazione hai notato delle differenze?

M: Io apprezzo le persone che riescono a comunicarti, senza dover far vedere che loro hanno studiato. Rendi semplice la complessità. Significa che tu hai così tanto studiato quell’argomento che è tuo e che riesci a raccontarlo, ma anche trasmettendo la passione. Il fatto che raccontarlo sia anche un impegno che tu hai. Questo secondo me è importante. Mi fa venire le bolle chi usa un linguaggio difficile e artificioso volutamente per… questo allontana. Diventa incomprensibile. Cambia la relazione, vuol dire che tu ti stai ponendo sopra di me. Io vorrei uno che si ponga al mio piano anche se le competenze sono diverse, la relazione è pari. Tu mi spieghi io apprendo.

S: Io devo dire che ho apprezzato molto che durante questo periodo… anche se uomini e donne che vanno in tv diventano più prime donne. Detto in maniera poco femminista. Quello che… parlano tutti in modo scientifico, però poi si risolve una figura costante, ripetitiva… stavo riflettendo che in Italia per trasmettere un interesse culturale si usa un’influencer. Per gli Uffizi si chiama la Ferragni, non un ricercatore. E questo è significativo. Come mai in Italia si chiama ancora una bella ragazza che si fa vedere che va al museo… quando magari si potrebbe parlare di arte? Sono state fatte delle bambole che impersonano personaggi importanti. Per esempio, la Cristoforetti. È importante che una ragazzina giochi con la bambola. Magari può pensare che ce la può fare.

M: Secondo me è importante che anche i bambini giochino con la bambola della Cristoforetti… così si rendono conto di essere una parzialità e non il falso universale maschile.

S: io devo dire ho un figlio maschio e una femmina. Entrambi si scambiavano i giochi. Quello che ci capota quando vado a parlare di loro… mi chiedono: “Cosa fanno i tuoi figli?”. Uno fa giurisprudenza, l’altra ingegneria. E loro: “Tuo figlio fa ingegneria…”. E io: “No, mia figlia”. Questo ci capita: che scambino i ruoli. Per noi è strano. Per noi sono uguali. Hanno giocato con le bambole e a fare la lotta. È importante che vengano educati alla parità.

A: L’apertura alle ragazze delle professioni scientifiche… deve essere una contaminazione al contrario. Anche i maschi giochino con la bambola. In Danimarca non è inusuale che i ragazzi facciano i lavori di cura che da noi sono a quasi totale appannaggio delle donne. Infermieri maschi sono lo stesso numero delle infermiere. Lo sforzo dovrebbe essere duplice. La domanda iniziale sui testimonial di musei. È un’ottima iniziativa. Probabilmente avviene una proiezione. Il museo è vivo se ci sono le persone che ci lavorano. Ciò che negli anni può avere incentivato a riconoscersi in figure diverse dalle solite c’è la pubblicazione di quel libro per bambine che riportava figure di scienziate. Credo sia stato una piccola rivoluzione. È un libro illustrato, in parole semplici… per es. intervenire sull’editoria scolastica che è legata… io ho visto i libri di mio nipote… insomma! Siamo lontani. A partire dal linguaggio. Si parla sempre al maschile.

Ricercatrice: ci sono anche nei libri scolastici. Facciamo molto “bla bla” e non possiamo alle azioni concrete. Vorrei dire che stanno nascendo dei nuovi modelli di donna scienziata, perché fino all’altro ieri il modello di donna era la Rita Levi Montalcini: una donna genia, ma che ha dovuto rinunciare di stare una vita affettiva o di generare dei figli. Come dire… vuoi fare la donna di scienza? Ok, ma tieni contro che dovrai fare delle rinunce. Credo che si stiano facendo dei grandi passi avanti.

C: Io personalmente innamorata di Barbara Gallavotti che ha anche lei quella capacità di cui dicevo prima, di rendere semplice alcune spiegazioni che sono difficilissimi, concetti dificili, però sono innamorata anche della Ferragni, considero Leone un mio nipote, non so perché, perché mi pace anche quell’immagine di donne. Dalla mia parte non escludo di avere delle capacità diverse… di essere accettate come donne. Tutte siamo diverse. Adesso parlavamo del genio, della Montalcini, ma non sono un genio. C’è spazio per tutti e che ciascuna a modo suo porta qualcosa… noi siamo molto critici con le donne… nessuna ci piace veramente, noi siamo cattive. E io sono… facciamo che ci piacciono queste donne, tutte… anche la Ferragni.

S: la mia non era una critica alla Ferragni, lei è geniale nel suo settore. Ha una maniera di porsi e di vedere… per quanto riguarda gli Uffizi o della scienza ci avrei messo una persona diversa. Niente contro di loro che hanno portato avanti anche delle campagne… che altri non hanno fatto. Secondo me dei personaggi del settore potrebbero invogliare a intraprendere quella carriera scientifica… e non so se farsi vedere con le gambe scoperte e la pancina scoperta.. non so se porta le due cose.

G: secondo me sì, bisogna tener presente che c’è un pubblico di giovanissimi che segue Chiara Ferragni e se magari Chiara Ferragni si mettesse a parlare di neuroscienze… qualcuno inizierebbe a interessarsi. È proprio il ruolo dell’influencer. Lei influenza un pubblico, di gente giovani… principalmente ragazze. Se un personaggio come Chiara Ferragni parlasse di scienza sarebbe efficace.

Ricercatrice: siccome l’UE investe tanto per far in modo che gli scienziati sviluppino le loro capacità di comunicazione… sarebbe meglio, tu dici, dare a qualcun altro questo compito di avvicinare la scienza ai cittadini.

G: Secondo me, se una persona che ha la popolarità della Ferragni dicesse: “Ehi, gente, oggi a questo museo a Milano fanno questa mostra”. La gente ci andrebbe. Quindi, in questo modo… potrebbe andare e uno di loro potrebbe dire: “Ah, questa cosa è interessante, approfondisco”. C’è da tenere presente non tutti hanno avuto l’educazione e il contesto familiare che permette di approfondire in maniera autonoma le cose. Da piccola mia mamma mi portava nei musei e quindi io ho la maturità di andare. Però non è che a tutti succede così. L’influencer entra in gioco lì… se la tua vita è passata sui social… è dai social che ti deve arrivare lo stimolo. Un museo che si mette a fare video su TikTok raggiungerebbe un pubblico di giovanissimi.

Ricercatrice: Altri commenti?

M: secondo me è giusto che i due mondi si avvicinano… e lo si fa comunicando quello che si fa e la passione…. E manca! Io vedo magari le scienziate in tv e mi appassiono, però perché è arrivata la pandemia, se no queste scienziate non le avrei mai incontrate. Forse bisogna riflettere anche sui canali. Quando G. dice il canale TikTok non ha tutti i torti. Sarebbe interessante far vedere gli esperimenti che possano attirare l’attenzione, ma fatta sui canali che usano quelle nuove generazioni che non accendono più la tv. Io vado nelle classi, mi confronto con i ragazzi e mi dicono che la TV loro non la guardano. Quindi, va bene lo scienziato in TV, ma se poi i ragazzi non guardano la tv… tanto vale.. bisogna intecettarli sui loro canali.

A: A me interessava capire quello che dicevi… sul fatto che vengano stanziati soldi dall’Unione Europea per fare in modo che gli scienziati comunichino alla cittadinanza, mi interessa capire.. come funziona, come vengono recepiti? Come si traducono? Sono competenze diverse. Quali sono gli strumenti che vengono adottati.

Ricercatrice: considerate che adesso c’è la Terza Missione dell’Università si chiede a tutte le persone di comunicare all’esterno che cosa fanno. Ci sono festival e manifestazioni in cui le scienziate e gli scienziati parlano, incontrano… non si forniscono degli strumenti, si chiede di fare uno sforzo di avvicinamento. Anche perché lo Stato finanzia la ricerca, quindi il cittadino si chiede: “Perché?”. Quindi, significa comunicare l’impatto.

M: io ripropongo quello che faccio con il mio istituto che si occupa di storia e antropologia… però noi abbiamo sempre pensato di dover uscire dai luoghi di cultura tradizionali… noi facciamo molte visite guidate, lezioni in strada… l’idea è che siamo a servizio di chi magari non verrebbe mai a un convegno. E anche a classi sociali diverse… perché non ci dimentichiamo che la classe benestante o medio-alta sono loro che si occupano di quella cultura… quindi riuscire a intercettare le classi medio-bassi è la scommessa che dovremo cercare di vincere. Non è la cultura tradizionale, la cultura vetrina, la cultura dorata, ma di una cultura che si sporca, cercando linguaggi diversi, strumenti diversi, ma appoggiarsi ad altre arti audio-visive. Questa è la scommessa che si dovrebbe portare nelle scienze.

G: Le persone potrebbero avvicinarsi di più cosa avviene in maniera pratica, nella vita pratica. Noi concepiamo le materie scientifiche come qualcosa di noioso che devi studiare… poi dopo basta. Io mi ricordo che… io faccio cinema… al primo anno ci avevano citato un libro scritto da uno studioso di cinema e da uno scienziato e spiegavano come le neuroscienze interagivano con il cinema. Molti di noi il libro lo hanno letto. Era una cosa ci interessava. Come si poteva comunicare con le neuroscienze.

A: in relazione al periodo che abbiamo vissuto… al tipo di informazione che è stata data. Abbiamo assistito tutti a un eccesso di informazione spesso condita da tanta ideologia. Purtroppo anche da parte di scienziati che hanno comunicato anche in maniera scorretta. Un richiamo all’etica e alla responsabilità quando si comunica. È veramente fondamentale. Si crea confusione nella cittadinanza e si annulla qualsiasi sforzo. Questo è uno degli input sull’etica e sulla responsabilità sociale della comunicazione scientifica.

C: Lo scienziato/a influencer… con delle doti e caratteristiche che prima non venivano chieste in accademia. Potrebbe essere una nuova modalità di fare selezione, anche per chi si occupa di scienza. Noi tutti proviamo a fare comunicazione… ma in che modo dovrà essere portata avanti? Non chiusi nel nostro ateneo, ma magari nella strada, andando verso culture diverse, idee diverse, pregiudizi diversi.

S: La cosa importante sarebbe di rendere le conoscenze molto più fruibili e veloci. Prima tutti noi avevamo la pazienza di leggere e riflettere, adesso quando sono passati 5 minuti è già troppo… anche quando sentiamo alla tv uno scienziato… ma vale anche di storia deve essere coinciso, breve e con un linguaggio semplice, se no si annoiano.

### Members of an LGBTI+ group

|  |  |
| --- | --- |
| 30th September 2021 | Participantes:   * F1\_Facilitador 1; F2\_Facilitador 2 * P1\_Participante1; P2\_Participante2; P3\_Participante3; P4\_Participante4; P5\_Participante5; P6\_Participante6; P7\_ Participante7; P8\_Participante8 |
| 18h30 |
| Online |

F1: (…) do projeto ALLINTERACT em Portugal, coordenado em Portugal pela professora Anália Torres e em primeiro lugar queria agradecer, em meu nome pessoal e em nome da professora Anália Torres que é coordenadora em Portugal deste projeto, a vossa disponibilidade para estarem aqui presentes hoje nesta sessão de debate, de discussão em torno às questões da Ciência e da proximidade da Ciência com os cidadãos. O projeto ALLINTERACT é um projeto financiado por Horizon 2020 e tem precisamente, digamos assim, como grande preocupação perceber a ligação, o impacto melhor dizendo da investigação em duas áreas concretas, por um lado as questões de género e por outro a educação nos cidadãos. E é precisamente no âmbito… há outras coisas em curso através de linhas, digamos assim, de pesquisa dentro do próprio projeto em curso em simultâneo, mas… nomeadamente um inquérito, um questionário vai ser aplicado em vários países, mas outra das linhas é este contacto direto, se quisermos, e mais sensível, de uma xxx qualitativa com os cidadãos para perceber, com grupos de cidadãos diferentes e em diferentes países, o impacto real, se quisermos, da Ciência nestas duas áreas. A nossa equipa ficou com as questões relacionadas com o género, as outras equipas noutros países estão a trabalhar questões ligadas a educação e às ciências da educação e ao impacto de esses conhecimentos e, pronto, nós vamos desenvolver este trabalho. Já houve uma primeira sessão com outro grupo de participantes, digamos assim, que será o grupo experimental que terá mais repercussões no futuro, com pequenas intervenções no âmbito na promoção das questões da Ciência e depois regressarão para uma nova sessão. O vosso grupo é digamos o chamado Grupo de Controlo e, nesse sentido, terão apenas uma sessão de debate e de conversa connosco. Mas uma vez, o Focus Group é uma questão, um ambiente e igualitária partilha de opiniões. Não se espera que as pessoas cheguem a nenhum tipo de consenso, mas sim que partilhem cada uma das suas perspetivas. O Focus Group estará organizado em torno de três digamos assim, vinhetas, três comentários que derivam de resultados de diferentes pesquisas, nomeadamente também da análise feita no âmbito deste projeto, análise de social media, portanto redes sociais, sobre o impacto da Ciência nos cidadãos, mas também de outros projetos de investigação, que tem como objeto de estudo estas questões do Impacto da Ciência na sociedade e no âmbito dos cidadãos. E a partir dessas expressões, desses pequenos resumos, digamos assim, nós não nos temos que cingir, digamos, a comentar o que está lá escrito, mas perceber a temática e dizer a forma como nos relacionamos com cada uma daquelas frases que vão ser expostas, daquelas vinhetas. São os pautadores, digamos assim, da discussão. Passo a palavra para F2. F2, força.

F2: Olá a todas e a todos, obrigado por estarem aqui. Tem sido um tremendo desafio coordenar o Focus Group, más também tem sido muito satisfatório em termos a disponibilidade das pessoas que cá estão para participar nele e o interesse, o interesse no tema. E, portanto, obrigado. Eu só vou mostrar aqui uma breve apresentação para que saibam a sessão está a ser gravada, como foi informado na ficha do projeto e no consentimento que vocês receberam por email e é só para continuar um bocadinho… já estão a ouvir bem? Sim? Ok. Então, só para continuar um bocado a intervenção do F1. Este é o projeto, aqui temos alguma informação, como ele já referiu dos objetivos: criar conhecimento novo sobre como transformar a potencial participação dos cidadãos, das cidadãs na Ciência e no envolvimento efetivo da investigação científica e também revelar novas formas de comprometer atores e pessoas da sociedade, incluindo jovens e grupos tradicionalmente excluídos da Ciência. Isto é quem está aqui a trabalhar, o professor Bernardo, a professora Anália e eu. E como já referiu o professor, estamos na parte qualitativa do projeto, já fizemos uma pesquisa bibliográfica e análise de redes sociais e agora estamos na parte dos Focus Group, uma parte mais qualitativa que também faz parte do trabalho, do processo geral. Importante que a confidencialidade e o tratamento dos dados, a participação voluntária, que o professor também já referiu, tudo isso está contido no consentimento enviado para vocês por email antes da realização do focus e nesse consentimento estava a autorização para gravar essa sessão, portanto, acho que podemos começar. Não sei se há alguma questão antes de começar que algum de vocês quiser colocar? Não? Podemos começar então, obrigado. Então, podemos começar, professor, com o primeiro tópico. Vou ler o primeiro tópico. Diz: “Há exemplos no Instagram de como os cidadãos beneficiam da investigação para promover campanhas sociais ou ativismo. Por exemplo, o uso do hashtag #StopBullying está relacionado com protestos sociais contra o racismo e a violência escolar e também torna visível a necessidade de quebrar o silêncio e de se tornarem espetadores ativos contra a violência”. Professor.

F1: Bem, este, se quisermos, é a primeira informação, a primeira vinheta que serve de motivo para nossa discussão, mas se quisermos, de uma forma mais concreta, poderia lançar também, como pista adicional, a ideia de… perguntar-vos, se quisermos, de uma forma mais direta, de que forma é que se confrontam também, no vosso dia a dia, eu presumo que tenham acesso ás redes sociais ou frequentem algumas delas pelo menos. Se nesse vosso quotidiano se também se confrontam com, digamos assim, hashtags ou outras formas de divulgação da Ciência ou informações, posts, publicações que tenham por base conhecimento científico. Essa, se calhar seria o primeiro, a primeira xxx (07:59) aqui a tentarmos debater o dissecar. Ou se é uma realidade que está muito desfasada da vossa frequência, da vossa utilização das redes sociais.

P1: Bom, sobre… aconteceu uma coisa engraçada comigo e com o Facebook, que é uma rede social que já foi muito mais relevante do que hoje, mas eu uso ele basicamente para ler artigos. Acho que o algoritmo já está bem treinado e as pessoas que tenho na minha rede, então eu geralmente quando entro lá é porque eu estou com tempo, porque eu sou uma pessoa publicando artigos, publicando conteúdos relevantes e muitas vezes têm estudos por trás. Geralmente tem fontes que têm a ver com a bolha um pouquinho universitária também que tenho na minha rede social e acho que não sei se era essa a sua pergunta. Acho que tem a ver.

P2: Um bocadinho também na minha experiência, eu trabalho com redes sociais diretamente e eu noto que recentemente ao fazer pesquisa para certas inspirações em relação a publicações, é muito comum integrar peças que sejam mais ligadas ao ativismo ou mais ligadas a documentação e partilha de estudos, de estatísticas. É debatível se muitas vezes isso é feito para performativamente ou não, mas o que noto que é uma parte relevante da minha rede profissional e pessoal.

P3: Eu, P3, também trabalho em moderação de conteúdo do TikTok, no meu caso, e as hashtags são muito importantes, né, tanto falo do TikTok especificamente, mas é muito importante para a gente identificar os conteúdos (… 10:09) e de já ser exatamente para os conteúdos, os usuários, o que eles querem ver. Meu mesmo caso do P1, né, falando certo, mesmo caso do P1, na minha… no Facebook uso muito, vejo muita hashtag sobre empoderamento feminino, sobre causas sociais, porque é o que eu estudo. Então vejo muita reportagem da BBC, muita coisa desse tipo que eu acabo consumindo, eu sempre leio muito e a rede social também me entrega desse conteúdo geralmente, né. Eu sigo pessoas do meio… mas eu não sei se isso tem a ver com a questão, que para além dessas divulgações de formação científica, tem também muita desinformação. Não sei se está conectado com a pergunta que vocês fizeram, mas tem muitos factos que não são, de facto, apurados e são largamente divulgados e quando a gente vê, eles estão falando que a cura do câncer beber cinco litros de água por dia e tudo mundo começa a beber, faz *trends* virais eternas de beber cinco litros de água por dia para não ter câncer. Não sei se é bem o que vocês querem saber, mas para além dessa produção científica, eu… dessas hashtags também têm esse outro lado meio que das *fake news*, as coisas não estão esclarecidas que a grande massa acaba consumindo aquilo, porque as pessoas que estão… pronto, muitas das pessoas com as quais eu convivo, que não têm o nível acadêmico, não têm preocupação com a informação, com fontes de informação, pelas hashtags elas vão ali buscando ou pelas hashtags elas vão ali recebendo os conteúdos que nem sempre são de facto cientificamente comprovados, o que também é uma problemática gigante ao meu ponto de vista. Mas é isso: as hashtags importantes fazem parte da minha vida enquanto pesquisadora, enquanto usuária de redes sociais, as acredito também que algumas vezes pode conduzir à desinformação. Não que isso tem a ver com as hashtags, mas pronto, acontece porque é o que está sendo publicado na rede.

P4: Se puder acrescentar, eu concordo com o que foi dito até agora e acho que as minhas redes sociais também estão um pouco orientadas nesse sentido. Tenho Facebook, Instagram, TikTok, Twitter… e sinto por vezes que a informação é um pouco orientada para os meus gostos específicos, como é natural. Eu trabalho sobre questões de violência de género e de questões LGBTI e, portanto, usar os hashtags e o tipo de mensagens é comum e é frequente por parte de organizações governamentais e também não governamentais. Até, por exemplo, estava a me lembrar agora, não é exatamente… é uma questão social, é uma página chamada *Wilder*, que é sobre… tenta responder às pessoas, poem fotos de animais que não conhecem na rede social e aí investigadores e investigadoras tentam responder a essas perguntas, identificar a espécie para fomentar um bocadinho mais o desenvolvimento por parte de *everyday citizens*. Acho que é uma boa ferramenta, mas também como a P3 indicou, tem os seus revês e por vezes quando essa informação não é verificada ou não provem de fontes fidedignas, esse efeito cascata de partilhar um hashtag pode-se tornar algo nocivo.

F1: Mais alguém? Tenho aqui, do que estavam a dizer saltam-me aqui duas ou três ideias que, se calhar valia a pena continuarmos a conversar sobre elas, que é a questão precisamente… São duas se quisermos, que é, por um lado, esta lógica dos hashtags e essa divulgação e se quisermos a conexão de… o impacto da Ciência nos cidadãos e o engajamento da Ciência nos cidadãos tiver muito pressa à lógica dos hashtags e das redes sociais, pareceu-me que havia a ideia que depois as coisas andam em circuito fechado, que tem muito a ver com os algoritmos das próprias redes e portanto isso vai só impactar aquelas pessoas que à partida já terão essa orientação. Pelo menos presumi isso de aquilo que vocês estavam a falar e de vossas próprias experiências, não é. Essa é uma questão, não é: o fechamento e depois em que circuitos é que passaria essa informação e esse impacto da Ciência. E o segundo tem a ver, a segunda coisa que me pareceu muito interessante, com esta… será que essa informação que nós disparamos promove confiança ou desconfiança sobre o que lá está por causa da incapacidade da verificalidade, digamos assim, da verificação da informação. Será informação confiável ou desconfiável, não é? Não sei se têm alguma coisa a acrescentar a estas duas coisas. Me pareceram interessantes sobre a forma como a Ciência está na nossa vida todos os dias, mas, ao mesmo tempo, parece estar numa forma muito condicionada. Não sei se concordam ou não.

P2: Em relação à parte da criação de bolhas, eu creio que não só é comprovado, porque nós sabemos que como modelo de negócio as redes sociais vão tentar sempre integrar os conteúdos com os quais nós vamos interagir de forma de estarmos mais tempo nelas, mas também acho que tem a ver um bocado com o extremismo que temos visto recentemente e a possibilidade destas comunidades extremarem certas ideias e promoverem em apenas certas visões das coisas. Como falámos um pouco na desinformação, a ideia de que não existem depois temas que nos levem a confrontar ideias em torno a algumas pessoas inatingíveis com certa informação, porque elas nunca vão dar o *engagement* necessário com essa publicação e dessa forma não vão estar mais disponíveis para receber outro tipo de conteúdos. É algo que, no meu caso, é uma preocupação.

F1: Estamos aqui com alguns problemas, parece, com a ligação. Eu pelo menos não estou a ouvir bem.

P2: Peço desculpas. A minha Internet não é muito boa, portanto peço desculpas.

F2: Mas eu ouvi tudo, sim.

P5: Eu concordo com a P2 dessa criação de bolha que as redes sociais acabam criando. Acabamos vendo nós mesmos na rede social, o que pensamos acaba sendo validado pelos hashtags que você já curtiu no passado e você vai ver de novo aquele imenso conteúdo daquelas mesmas pessoas. Eu uso mais Twitter e Instagram e no Twitter eu sigo contas mais de jornalistas, cientistas, mais por causa da pandemia, e no Twitter é muito rápido quando mudam os hashtags. É muito… se eu vejo que está acontecendo uma coisa estranha nas notícias, no primeiro lugar que eu vou ver é no Twitter porque eu sei que lá vai tar nos *trending topics* e eu vou achar a informação e vou achar algum cientista já falando sobre aquilo ou um jornalista falando sobre o assunto, mas são sempre os mesmos. Para você sair dessa bolha é uma coisa que você tem de fazer ativamente, você tem de ir atrás de outras fontes. Não é a rede social que vai te levar a essas outras fontes.

P4: Eu concordo com P5, e acho que são partes diferentes do processo, mas acho que já haver de alguma forma algum tipo de *engagement* de uma população não tão especializada em conteúdos científicos é um primeiro passo já alcançado com sucesso. Ou seja, muitas vezes este tipo de campanhas ou o uso de hashtags promove a associabilidade de conteúdos que só vês em reduzi-los ou em descomplexificá-los, mas sem dúvida, como tem sido dito até agora, também cabe ao desenvolvimento se calhar de pensamento crítico, de uma reflexão crítica, para questionar as fontes e as suas, os meios de comunicação porque essas bolhas, como P2 estava a dizer, elas vão ser naturalmente alimentadas por quem governa estas redes. Nós queremos que depois elas façam sentido para nós e que sejam próximas de nós e que comprovem aquelo que dizemos, a nível psicológica é normal.

F1: E sentem, por acaso, que as campanhas, eventuais campanhas, ou o ativismo se tem vindo a fundamentar mais em exemplos que venham da investigação ou nem por isso, quando circulam pelas redes sociais.

P3: Olha eu acredito que sim, particularmente quando a gente começa depois a perceber, igual no Brasil, né?, não só recentemente no filme da xxx (20:12)… como é que fala o nome dela? Susana xxx (20:14)… não sei como pronunciam… *whatever*. Faz uns 15 ou 20 anos, se a memória não me falha, ela juntamente com a namorada e a família, matou os pais. E até então isso acontece… tudo mundo conhece esse crime e tava tudo ok, tipo, né? Ela pressa, beleza. Aí lançou um filme a semana passada, se não me falha a memoria, desse caso e aí o Google começou, as pessoas começaram a ir no Google procurar onde é que era a casa, as pessoas começaram a ver o filme e começaram a publicar na rede: “olha a casa”. Eu nem acompanho muito isso, mas a minha rede social vem vindo: o Google apagou a imagem da casa porque as pessoas estavam procurando, não sei… “Você sabe o que a Susana fez? Como é que está hoje?”… Então, essas coisas que intrigam ás sociedades, sempre quando elas são colocadas ali na rede, quando elas são trazidas pela mídia ou seja pelo veículo que for de alguma forma, aquilo aumenta a comoção social normalmente de um caso já muito antigo, mas isso trouxe à pauta novamente o que é que foi aquele caso e agora todo mundo se vê várias notícias, pessoas falando sobre psicopatia, falando sobre o que ela queria xxx (21:25) e que ela não fez, todas essas coisas. Então acho muito que essas coisas que trazem esse movimento social, sim, acabam por produzir conteúdo, mais conteúdo, acabam por motivar a investigação… estou falando disso, sim? Mas pronto, por conta dessa coisa da Susana começou a aparecer mais na minha rede artigos, coisas sobre o comportamento, como identificar se você é um psicopata, é um teste que funciona, não sei, mas está lá na rede social. A pessoa faz e descobre se ela é um psicopata ou não, acho eu. Então aí que eu falo: isso aumenta a pesquisa, mas qual pesquisa que é? Estamos falando de uma pesquisa de facto acadêmica, uma pesquisa validada, ou estou falando de uma pesquisa das vozes da minha cabeça. E como é que isso chega nas pessoas, como é que as pessoas consomem isso. Porque eu vou ler uma coisa, eu, com o pensamento crítico que eu tenho, eu vou tentar ler e entender um pouco, ver se é verdade para depois sair falando para pensar. Mas tem gente que não, que lê a notícia e ali falou: “Você gosta de macarrão com feijão. Você é psicopata”, a pessoa vai acreditar. Então, como é que essa informação é dada às pessoas, quem é que consome essa informação. E aí que cai no que P5 e P2 falaram desse círculo. Se eu estou sempre no círculo, por exemplo, das *fake news*, eu nunca vou sair daquele círculo. Eu não vou andar no círculo das *fake news* para ler um artigo da BBC, para ler um artigo, sei lá, de um jornal, de um jornal científico que for, porque aquilo não é a minha realidade também. Também cabe ali pensar uma realidade como aquilo também é um sintoma social na realidade dele, o acesso à informação, como ele consome informação. Então, quando a gente fala de rede social, tem todos esses entricamentos, da rede por si, da mídia, de quem é que está consumindo, qual é que é o perfil dessa pessoa que consome, qual é que é o *background* dela, acadêmico, científico, *background* dela de vida, porque provavelmente aquele *background* vai influenciar diretamente no que ela está vendo na rede social dela, né? Minhas primas de quinze anos, a rede social dela, gente, é xxx (23:35), a fazenda, maquilhagem e dança… e é isso. Se você jogar uma notícia lá na rede social dela que for… engravidou com a xxx (23:47), como é uma notícia louca, elas vão acreditar porque elas não estão interessadas nesse tipo de conteúdo. Então, também como as meninas já falaram, a rede social às vezes nem vai entregar para elas esse tipo de conteúdo que não vai interessar. E quando interação é só mentira às vezes a pessoa não vai ter discernimento para poder diferenciar a realidade da ficção e assim a gente vai na loucura de compartilhar mais hashtags às vezes sobre uma ação que nem é verdade. Em fim.

P1: Para mim também acho que a pergunta teve a ver com a confiança, segurança dos conteúdos, eu acho que isso gera um efeito para mim… eu sou muito escéptico em consumir qualquer coisa, mesmo de amigos, mesmo da minha bolha. Qualquer dado que seja minimamente remitindo a uma estatística ou a um facto ou a uma realidade da sociedade, eu tenho muitas ressalvas. Acho que essa facilidade do compartilhamento das notícias e do cortamento do conteúdo, da história, né, tem um lado positivo que alguém falou, de deixar as coisas mais acessíveis, mas é um lado de cortar muito caminho. Então às vezes eu fico sentindo falta de saber de onde vem aquela informação, de ver essa história. Às vezes com o meu companheiro já teve isso, né, tipo, eu quero saber o que é que é, de aonde veio, como surgiu, por quê isso está acontecendo, e eu acho que isso é um esforço que às vezes eu tenho de fazer ativamente, né, porque a gente entra nessa… acho que tem a ver com o hábito, com o consumo, de consumir informação sem pensar. Então fica assim esse questionamento, né: será que há… a gente está tendo mais acesso à Ciência ou a gente se está esquecendo do o que é que é científico ou que é que não é, o que é que é uma investigação bem feita, o que é que não é… esse desfazer essa barreira é positivo porque a gente está produzindo conhecimento ou também tem um aspeto negativo porque a gente também vai perder o rigor de uma informação de qualidade, bem baseada. Eu lembro que na época eleições eu tinha muito cuidado de querer saber qual metodologia de pesquisa para cada prévia de votação, porque tinha coisas absurdas. Tinha um jornal que publicava: “80% da USPI (que é a faculdade) vai votar no, sei lá, no Bolsonaro”. Aí você ia lá e olhava na metodologia de pesquisa e ah “entrevistamos dez alunos de uma faculdade de economia”… Agora entendi.

P3: Legal…

P1: Eu tenho esse cuidado, mas é um esforço, né? E aí eu fico pensando quanto é que a gente está… como é difícil navegar, dar acesso sem esquecer de transmitir, junto com a informação, o que é que faz aquela informação ser confiável, né? Acho que tem esses dois lados de dar acesso à informação. Aqui está a informação e você pode confiar nela porque ela foi bem feita, foi feita assim, assim e assado. Então, não ajudei em nada, só joguei no ar uma crise que eu tenho…

P6: Desculpem, posso partilhar uma… por mais um pensamento? Desculpem-lá que eu ainda estou em trabalho, mas na minha ótica de tudo isto acho que passa também pela questão da educação e como somos educados mesmo nas próprias escolas, não é? Ou seja, nós entrámos na escola e pelo menos eu apanhei um bocadinho de fim do secundário com este *boom* todo do Instagram e do Facebook e nós não somos ensinados, ou seja, não há assim um falar disso para, pronto, para os mais novos. E então… eu próprio também tive uma experiência bastante negativa por causa disto. Ou seja, deste tipo de divulgação de tipo de informação, neste caso de desinformação, e penso que tudo passa sobretudo por como educar, educar a ver, educar a pesquisar, educar também a saber onde é que está a informação e a desinformação. Eu sei que obviamente está espalhada por tudo lado, mas pelo menos, o ensino do filtro. Pelo menos esta é a minha ótica sobre este assunto.

F1: Mais comentários?

F2: Obrigado, P6. Temos aqui a mão de P7, que quer falar também. P7, força.

P7: Sim, antes de mais, desculpa por não ligar a câmara porque estou trabalhando, mas o assunto me chamou a atenção, sobretudo a pessoa que falou anterior, porque eu tive a pensar para esta conversa com pessoal de uma faixa etária assim dos 40 anos, não das redes sociais, mas para quem é dessa faixa etária, eu acho que o Wikipédia já ocupou esse espácio de lançamento de muita *fake news,* né? Também só um comentário, mas do meu ponto de vista qualquer informação que a gente leia hoje em dia, a gente precisa saber de aonde é que ela veio e entender quem é que escreveu aquilo. Não só, digamos, colocando dentro do mau a Wikipédia, porque a Wikipédia hoje já tem artigos confiáveis, mas espantou aquele ponto de vista de aquelas pessoas e pensar que a Wikipédia não é fiável e às vezes um blog já seria, um blog de uma pessoa que, por exemplo, goste de psicanálise, mas não é um estudioso da psicanálise. Está aí dando uma opinião meiga sobre aquelo que leu. Ou seja, eles não estavam acreditando na informação da Wikipédia, mas a gente estava acreditando em blogueiros… e, eu acho que a Internet depois estragou. Antes a gente queria reclamar tinha de ir à biblioteca para estudar e fazer estudo e hoje em dia a banalização ou o facilitismo do acesso à informação estragou a coerência, a propagação da informação em si. É só uma aspa, mas eu fiquei bastante espantado com xxx (30:16) com o comentário respeito do Wikipédia, mas eu pelo menos tudo, tudo que eu vejo também penso que é necessário a gente saber como adotamos também isso, tipo quem é que foi a amostra daquele artigo, por quê é que eles disseram aquilo, que base científica têm para falar sobre isso. Por mais que eu seja leigo eu gosto sempre de ver o currículo de quem escreveu e o que é que estuda e coisas do género, mas já deu para reparar que não é toda a gente que tem essa preocupação. Era só isso o que eu queria comentar.

F1: Muito obrigado. Será que há mais virtudes, como aquelas que estão aqui nesta frase, não é?, de como o Instagram beneficia da investigação para promover campanhas de ativismo. Será que há mais deste tipo de virtudes na ligação das redes sociais à Ciência ou há ou haverá mais riscos e perigos como estes que vocês vêm referindo da desinformação, da manipulação… no fundo, do divórcio entre os cidadãos e a Ciência. Há mais riscos ou mais virtudes nesta ligação entre Ciência e redes sociais?

P2: Sim, eu creio que o facto de… um grande benefício que a investigação científica tem é a possibilidade de referenciar e depois referenciar o texto mãe. E nesse sentido, a própria investigação científica tem benefícios em relação à partilha de informações sem qualquer tipo de debate científico ou analítica que possa ser confirmada mais tardiamente. Ou seja, se eu partilhar uma estatística que tem um estudo por detrás, eu consigo confirmar se esse estudo é legítimo ou não ou se foi aceite, se foi revisto e tudo isso. Porém, existe também muito… às vezes por malícia, às vezes por necessidade de tornar as coisas mais atraentes, a necessidade de criar um pouco uma versão bonita do estudo, que chama a atenção. Ou seja, se eu tiver uma estatística que seja chamativa, tem uma frase que é bastante interessante, algo que pode ser partilhado nas notícias, que pode ser partilhado nas redes sociais, também acaba por virar quase um bocadinho para que seja partilhada a investigação ou que tenha algo apelativo que possa ser partilhado, porque a partilha de um estudo que não tem uma conclusão definitiva e que pede uma maior revisão no futuro, não é muito interessante para a grande maioria das pessoas e, portanto, não irá a ser alvo de um post nas redes sociais, de uma hashtag desse tipo de divulgação. Acho que é um bocadinho a corda bamba em que nos encontramos na divulgação científica.

P8: Eu ia dizer que eu acho… esse espaço de partilha de tudo, desde o que pode vir da investigação à teoria da conspiração super maluca, esse espaço de partilha já existe, esses conteúdos já são partilhados. Eu acho que se a investigação e a Ciência não ocuparem esses espaços, esse espaço vai estar ocupado por outras coisas. Portanto, e não acho necessariamente mal… ou seja, pode ser difícil, mas acho que é positivo os conteúdos científicos tentarem fazer uma adaptação para ser tornarem mais atraentes, remetendo sempre as fontes e aquilo que lhes dá alguma credibilidade. Mas, a partilha de conteúdos, sejam do género que forem, vai ser sempre continuar a existir e a expandir-se, portanto eu acho que é muito relevante que a investigação científica tente acompanhar, tente ocupar o máximo possível o espaço para tentar diminuir o espaço das outras coisas que podem surgir, menos credíveis e que, de facto, grande maioria das pessoas não terá a capacidade de discernir. O P6 apanhou no secundário, aqui o *boom* das redes sociais, mas eu já apanhei isso quer dizer… já depois da universidade. Portanto, a educação e a formação das pessoas jovens em relação à procura de bases científicas naquilo que encontram, vai sempre estar atrasado umas décadas de chegar a toda a gente. Portanto, a Ciência tem mesmo de fazer um *keep up* grande.

P5: P8, isso talvez tem a ver também com uma questão de linguagem, não é? Porque se calhar algumas coisas., alguns artigos científicos também e assim, são um bocado longe da linguagem diária…

P8: Sim, sim. Pode.

P3: Eu acho assim, que obviamente usar as redes sociais para tentar alcançar mais pessoas é um caminho obvio, necessário. A gente está no século das informações, está num mundo globalizado, as informações chegam muito rápido e são disseminadas muito rápido, então a Ciência, né, a academia, os meios científicos não se valerem disso para popularizar, para poder mostrar às pessoas o que está acontecendo, é um tiro no próprio pé. Para mim é válido totalmente o que que a Ciência, enquanto ideologia e tudo mais. Só que eu acho que outro ponto que a gente tem que observar é que o problema não é… pronto, pode ser que no momento a linguagem, a forma de divulgação fosse um problema e tal vez ainda hoje seja, porque a academia, penso eu, eu vejo assim, ainda vá naquele processo de aproximação da sociedade, de chamar à sociedade de não olhar à sociedade como objeto de estudo, mas de olhar à sociedade como parte indissociável, como parte importante que valida o por quê estudar, sabe? Não é olhar, você é um objeto, faço cinco perguntas e tchau, nunca mais te vejo. Não. Se estou te entrevistando, poxa, eu quero que você entenda o que é que estou fazendo aqui, que é que eu estou pesquisando, quero que você entenda que quando eu publique, que quando fale sobre isso, que você possa compreender o que está escrito. Então, esse é o caminho: ou popularizar a Ciência num sentido de não só de meios de publicar, mas também no sentido de humanizar como é que a gente faz isso. Um segundo ponto que eu acho que a gente tem que prestar atenção é que não adianta eu fazer um vídeo, ou fazer um conteúdo de YouTube, do Instagram, com stories, com brilho, com o que for, se as pessoas não são ensinadas a procurar, se as pessoas não são ensinadas a valorizar a Ciência. As pessoas não são ensinadas. O colega, não sei se foi P7 ou outro colega falou: a gente… como é que é isso, de aonde que veio esse interesse. Ele vai lá, ele verifica a fonte, ele perde esse tempo, mas como isso não é ensinado na escola a fazer isso… porque também a escola, pelo menos na minha experiência enquanto professora e tudo mais, a escola, em certa forma, ela é feita também para poder reproduzir o mesmo discurso do mundo social, capitalista, moderno, da lógica do trabalho. Pelo menos na escola pública de um bairro periférico do Brasil. Então, aquelas pessoas que frequentam aquela escola, não são ensinadas a pensar, a pesquisar, elas são ensinadas a trabalhar. Você vai, trabalha de oito a 18, segunda a segunda, uma folga na semana e acabou. Então, não cabe nesse modelo de educação o incentivo à leitura, um incentivo ao pensamento crítico, um incentivo à pesquisa. Então, você acha que essa pessoa, quando vai à rede social, ela vai artigo? Ela vai fiar preocupada em ficar a saber se o que está escrito ou não? Não. E tipo assim: não é totalmente culpa dela também, é também culpa da forma como ela foi moldada, tanto enquanto uma sociedade geral civil, enquanto no modelo escolar que a gente está inserido. Então, eu acho que também eles têm que voltar um pouquinho nesse problema para o entender o por quê que às vezes a Ciência não atinge todo o mundo, porque ela talvez não é uma coisa que seja de interesse e esse desinteresse não é culpa só da linguagem, ao meu ver, também é um sintoma, também faz parte do que as pessoas estão sendo ensinadas a pensar e como elas são ensinadas a pensar e a buscar informação. Então, uma coisa interessante que aconteceu que o Facebook fez pelo menos no ano das eleições no Brasil, tava rolando muita *fake news*, mas assim, uma coisa absurda, muita, muita *fake news*. Então Facebook, ele tinha um verificador de notícias. Eu não sei se vocês acompanharam isso. Então quando a notícia era falsa, Facebook falava: “olha, essa notícia foi falsa”, “A notícia x que fala disso, disso e de tal, de tal campanha, não é validada. Á verdade é isso, isso e isso”, ou “é meio falso, meio verdade”. E até eu acho que o xxx (39:56) fez algumas coisas do tipo verdade-mentira ou meia verdade – meia mentira para poder ver. Então, eu acho que a mídia, as plataformas também de… sociais, elas têm que o fazer. A Ciência por si só, ela não vai conseguir ao meu ver, tá? Ela, por si só não consegue desconstruir esse maranhado. A mídia por si só também não… a gente vai ter que pegar em todo mundo junto para poder ensinar às pessoas a importância da pesquisa para poder fazer as pessoas entenderem a pesquisa e poder fazer as pessoas terem responsabilidade sobre o que elas partilham e sobre o que elas consomem. Então, acho que é uma relação assim que, pronto… tem que estar todo mundo livre para poder ver se a gente consegue fazer Ciência, ser vista, ser respeitada, ser partilhada e divulgada de uma forma legal para todo mundo.

P7: Eu nisso concordo com você, primeiro porque eu acho que as redes sociais têm que… desculpa te interromper… porque é isso… precisava filtrar os conteúdos e eles só lhe interessam os usuários, muitos usuários. E a questão da linguagem e o acompanhamento de cada um e que como cada um vai absorver esse tipo de… como é que ele vai absorver a informação é muito particular de cada um. E isso queria ou precisávamos de um sistema de educação que fosse mais digamos… acompanhasse mais caso a caso, eu acho que é isso o que você estava querendo dizer e não formatar, não no caso de Portugal, mas no caso do Brasil, que uma turma de 50 pessoas que estuda filosofia se limita a entender, se limita a absorver a informação que aquele professor absorveu de uma obra que leu e ele vai transmitir… e essa informação ela vai se propagando assim da maneira daquele entendimento daquele professor, porque o professor depois não diz: “Esse foi o meu entendimento, vocês têm que ir e têm que pesquisar por vocês, pensar por vocês”. Aqui em Portugal o Ensino Superior, eu acho que é legado do sistema do ensino de Bolonha, porque tem um certo tempo, uma quantidade de horas de estudo que você estuda em casa. Você, imagina que temos 70 horas de uma disciplina, 35 você tem contacto com o professor e 35 é para você estudar em casa. E isso é legal, porque você pega a informação que o professor te deu em aula e em casa, quando você está pesquisando e essas coisas, você entende na sua maneira. E isso é legal, porque se acaba por, digamos, absorver que é o que o professor quis dizer, mas absorve também o seu conhecimento. Mas lá está: é preciso também ter essa educação do tipo: vamos ler as fontes, vamos entender onde é que ela veio, vamos saber quem é que estudou isso, por exemplo quem fez uma tradução do… sei lá, de Freud, quem foi esse tradutor, porquê é que falou nessas palavras. Porque depois também as traduções têm ditos e a informação depois acaba por não chegar exatamente como foi passada por Freud, mas acaba por ser passada da maneira como é que o tradutor assim o entendeu. E também é um bocado mal desde o meu ponto de vista.

F1: Obrigado. Mais alguém gostava de comentar o primeiro tema? Então se calhar passamos ao segundo tema, F2.

F2: Temos aqui o segundo tema de hoje. Diz: “Em muitas línguas, o uso das formas masculinas tem sido tradicionalmente usado para se referir tanto a mulheres como homens, embora também estejam disponíveis formas femininas. Um estudo interlinguístico (italiano e alemão) mostra que os pares de palavras ajudam a evitar um preconceito masculino na tipificação das profissões e aumentam a visibilidade das mulheres. Ao mesmo tempo, diminuem os salários das profissões tipicamente femininas. Esse potencial impacto tem implicações para as políticas linguísticas que visam a igualdade de género”.

F1: Não sei se já se tinham confrontado de alguma maneira com isto e com o impacto, se quisermos, da linguagem inclusiva e eventualmente aqui de duplos impactos, não é? Estamos aqui perante duplos impactos: por um lado o aumento da visibilidade das mulheres, da visibilidade social das mulheres e de aquilo que fazem e, por outro, a potencial consequência da diminuição dos seus salários, que é paradoxal, não é? Como é que… que é que isto vos remete? Como é que percebem, no fundo esta… como é que pode ser traduzido, se quisermos, este… para a realidade este tipo de resultado de pesquisa?

P2: É extremamente interessante que estes estudos estejam a ser desenvolvidos em relação ao impacto mais comprovável possível das mudanças linguísticas. É extremamente interessante. É algo que me compele bastante a pesquisar mais sobre o assunto. Em relação ao impacto, a esse duplo impacto é algo que eu teria que refletir mais pensadamente.

P4: Acho que um pouco no seguimento da conversa que estávamos a ter no primeiro momento, faz-me pensar de onde é que isto vem, que tipo de informação é que eu estou a obter, qual é que é a sua qualidade, que tipo de argumentação é que é utilizada. Em cima de tudo porque pelo que eu entendo, da minha interpretação da frase vai num sentido contraditório àquilo que a iniciativa ou a identificação do masculino e feminino para aumentar a sua visibilidade. Acho que caso este tipo de achados fossem comprovados, generalizáveis, poderiam ter de se ajustar a algumas questões nestes tópicos, mas mesmo vindo da academia em si, eu também acredito que poderão haver ainda mais questões, averiguar sobre este tópico, que tem muitos fatores interseccionais… já mesmo quando trata de um tópico de uma população que é repetidamente vitimizada, menorizada e invisibilizada. Mas acho que é importante porque acima de tudo, em cima da mesa fica outra vez de onde é que vem, qual é que são os fundamentos de certas intervenções ou certas iniciativas e acho que isso dá para pensamento crítico e por vezes temos de aprender com práticas e melhorar aquilo que fazemos, mas não tenho a certeza se será este o caso.

P7: Mas aquelas línguas que não têm género, como eu conheço alguns croatas e polacos e eles têm dificuldades em entender porque eles não… quer dizer, têm género, mas por exemplo eles não falam “a mesa”…

F1: O neutro…

P7: Eles só utilizam “copo” e “mesa”, mas, entretanto, também são sociedades muito preconceituosas.

P5: Em essas línguas eles não usam o artigo, mas género tem. A palavra tem.

P7: Sim, sim, exato. Não usam o artigo definido para definir o “o” ou “a”, mas em relação a dialética, claro que ela faz, ela causa algum impacto mesmo de maneira inconsciente, mas ainda assim, como vocês são mais estudiosos, eu acho que… o pouco que eu tenho acompanhado sobre o género neutro ainda continua pensando que a gente tinha que trabalhar mais para conscientizar à sociedade da diferença em si e do género que tipo esse género é igual ao outro e não só em termos de dialética mas em termos mesmos de consciência. É claro que a dialética vai ajudar a criar essa consciência, mas não era só a dialética que teriam que olhar. Até onde… porque eu xxx (50:30) assunto, tipo só em determinada se fazem muito com xxx (50:37), mas é a opinião que formei até agora.

P3: É interessante a intervenção de P4 porque realmente colocou algumas questões interessantes em relação à fiabilidade do estudo em termos de interpretação para a parte da política linguística e deixa-me um pouco a questionar também a questão de que forma é que conseguimos isolar a diminuição dos salários relativamente só a esta mudança. Ou seja, é impossível que esta seja a única variável neste estudo ao longo de um tempo que a única coisa que tenha sido atingida é realmente a mudança da linguística utilizada para se referir a este tipo de empregos.

P5: Completando um pouco o que P7 e P3 falaram, o nosso idioma, a nossa língua é o reflexo de como a gente vê o mundo ou o contrário, dependendo do ponto de vista. E no Português temos o masculino e o feminino e se usamos a palavra “médico”, a primeira pessoa, a imagem que vem à nossa cabeça é um médico homem. Não vai ser uma médica mulher, a no ser que você fale “médica”. E no italiano, ainda “pior”, porque não existe a palavra “médica”, é só “médico”. Mesmo se for uma mulher, eles vão chamar de “médico”. E isto reflexa muito de como a sociedade vê aquela profissão. Então, parece que aquele médico homem, ele merece, na cabeça das pessoas ganhar mais e eu acho que a língua, também como xx falou desse uso da mudança de… o uso do género neutro, faz parte, tem que fazer parte desse processo. A gente tem que mudar como a gente vê mundo, porque se… ou não, é também por políticas públicas também para diminuir a diferença dos salários e tudo mais. Eu sei que em Alemanha eles já estão começando a usar o género neutro nos jornais, eles já usam, mas em Português estamos muito atrás, comparando com Alemanha, com Estados Unidos, nesse requisito das profissões. Que no inglês eles já estão parando de usar tipo *“fire men”*, estão usando “*fire figther*” e na Alemanha também, nos maiores jornais e na televisão têm até pessoas reclamando muito no Twitter que eles são contra, sempre tem, que são contra a mudança, mas a língua é viva e nós somos os falantes e nós temos o poder de mudá-la, o poder está nas nossas mãos. É isso.

P3: Pode falar, que eu já falei muito.

P7: Lá está o que eu estava dizendo, tipo… inconscientemente a nossa dialética também nos afeta como a gente vê o mundo e essas coisas assim. Não estou dizendo que seja inválido esse tipo de estudo, mas eu acho que também temos que nos preocupar não só de mudar a dialética em si, mas conscientização das pessoas. Eu moro num lugar em que a masculinidade tóxica digamos, ela é muito evidente e eu continuo pensando que por mais que se mude a dialética, a maneira de pensar dos homens vai continuar na mesma porque eles vêm a mulher dentro daquele espaço. Eu tenho uma amiga aqui que trabalha no campo com homens e por vezes ela vem super frustrada também, porque às vezes ela consegue fazer trabalhos que eles não fazem e há uma espécie de reconhecimento ela tem chacota, tipo “maria rapaz”. Então não é só a dialética, mas também a conscientização, tipo ela é mulher e você é um homem, vocês os dois são pessoas. A linguagem pode nos ajudar mas eu acho que também precisava dessa conscientização de igualdade, porque vai refletir, claro, na dialética em sim.

P1: Eu acho muito interessante o que você falou P7. Para mim as coisas são muito meio ovo e a galinha assim, né? E até com o que o P5 estava falando: a língua é um reflexo de como a gente pensa ou o contrário, né? Então o quanto que… a transformação tem que ser primeiro como cultura coletiva ou primeiro como linguagem, porque uma coisa pode puxar a outra. Então eu acho que o que acontece até… a gente fala muito sobre representatividade, acho que cada vez mais… Alguém colocou uma representatividade que não existia pela primeira vez antes de ser aceite, né? E isso às vezes fomenta esse diálogo, essa transformação. Então acho que com a língua é meio por aí também. Existe um diálogo acontecendo e efetivar esse diálogo em transformações, seja na língua, seja no que for, seja na mídia, é combustível para outras transformações também, né? Então acho que as duas coisas elas andam muito juntas e eu acho que não existe uma sem a outra. Eu acho que não existe um caso em que as sinais… vai transformar, imagina, vamos transformar a língua e a cultura não vai acompanhar. Isso não existe porque se a cultura não acompanhar, isso não vai ser usado, então não vai ser transformado, não vai acontecer. Então, as coisas se regulam um pouquinho, né? Às vezes se fala, por exemplo de transformações linguísticas de género neutro, eles, falam xxx (56:41) seus tempos, mas tem várias coisas que não são de hoje, que foram criadas ou propostas e só estão pegando hoje. Acho que é um pouco isso, né, a ideia está rolando, mas agora talvez isso vai esteja pronta a resposta. Mas acho que só a proposta de mudança já tem um poder transformador muito grande, mas se elas não sejam aceites agora o que… o se elas requerem debate, como a gente está fazendo agora, não é algo que me preocupa, assim, do tipo “ah, vamos transformar a língua, mas a cultura não vai acompanhar”. Acho que tem um jeito de tipo vai acompanhar ou não vai e não vai funcionar. Mas eu acho que sempre vale a pena tentar transformar as coisas para puxar a transformação cultural. Porque a cultura e entendível, não tem como virar e falar: “não, agora vou mudar a cultura”, porque a cultura é um conjunto de transformações e muitas delas práticas, outras são filosóficas e de imaginar o coletivo, mas embora são práticas e como se diz, tangíveis. Não sei se fez sentido. Acho…

P7: Na minha também. Mais ou menos foi o que eu quis dizer. Não sei se falei muito diferente, mas era isso: conscientizar as pessoas, não só do género, mas da diferença do outro, que ele existe, mas é um aceitar o outro, do tipo você não interessa se você tem uma vagina ou um pénis, você e uma pessoa e pronto, acabou. E essa ideologia também tem que ser mudada, não é? Porque além do género também o pessoal precisa começar a compreender essa… a jogar fora certos estereótipos do tipo… que foram formados ao longo do tempo.

F1: Só gostaria, se calhar, chamar a atenção aqui para um aspeto que está neste tema de debate, que é a última frase, não é?, e que tem a ver com impacto final de este resultado de pesquisa, não é?, como este potencial impacto tem implicações para as políticas linguísticas que visam a igualdade de género. Eu não sei se querem comentar qual é a vossa opinião sobre, se quisermos, sobre os efeitos da pesquisa nas questões de género, na produção de decisões políticas que têm a ver com a nossa vida. Será que… qual é a vossa opinião? Têm noção clara de que isso possa acontecer, que as políticas que visam a igualdade estejam fundamentadas pela pesquisa ou acham que elas estão desenraizadas, ou qual é a vossa perceção ou a vossa opinião sobre estes potenciais impactos ou esta relação entre decisão política e pesquisa na área do género e da igualdade.

P3: Olha, eu acho que está muito conectado, cem por cento aliás. E se eu falo, por exemplo, só para cita, a Simone de Beauvoir, ela escreveu lá em 1949 livro chamado “Segundo sexo”, né? Nesse livro ela vem desmitificando muitas questões de género, vem desmitificando inclusive a questão da lésbica, né?, que ela vem falando: “Não, vocês pensam que a lésbica é o que? E uma mulher que gosta de se vestir como homem, uma mulher que gosta de se comportar como homem?” Não. Ela é uma mulher que tem interesse por outra mulher e está tudo bem. E nessa época que esse livro foi lançado, esse livro foi até proibido em alguns países, o Papa mesmo condenou esse livro um milhão de vezes e ali, pouco tempo depois, uns vinte, trinta anos depois, continuam se surgindo mulheres falando sobre esse livro, resignificando esse livro e tudo vai gerando uma comoção, que as pessoas estão falando não porque elas querem falar atoa, porque elas querem falar, elas querem mudança. E esse falar, falar, falar, quando mais você fala, mais pessoas vão lendo e aquele conhecimento as pessoas vão revendo, vão criticando e aquela crítica, aquela revista, aquilo tudo, vai gerando uma pressão, vai gerando um movimento de contracultura, um movimento de resistência que vai a mudar o sistema. É assim… tudo… não vou falar tudo, não vou homogeneizar, mas as coisas, as conquistas que a gente vai conquistando, são conquistas que a gente vai ali usando nos campos sociais, elas são fruto em grande parte de movimentos de resistência, pessoas que falaram: “Não, não quero mais, não aceito”. Uma mulher poder viajar sem a assinatura do marido no passaporte. Isso era comum 70 anos atrás. Não podia viajar se o marido não autorizasse. Então, ali ó, vamos bater nessa mesma tecla, bate uma, bate dois, bate três, uma hora junta mil bate a tecla eles têm que aceitar, né? As pessoas negras frequentarem a escola, mesma escola que os brancos, pera aí, quantas pessoas morreram nesse processo para hoje a gente estar onde está. E mesmo assim, convivendo com os frutos ali, convivendo ainda com o racismo, porque são coisas estruturais, né? Machismo, racismo, esses são sistemas estruturais, então, para a gente quebrar isso, não basta ficar falando, falando só na Internet, e pronto. Essa é uma ferramenta, é uma plataforma, mas a gente tem que juntar forças com outros setores também, né? Eu tenho que falar na mídia, eu tenho que fazer o protesto, a mídia tem que começar a abraçar isso… Igual P5 tinha falado essa coisa da língua que vai mudando, o jornal começou a usar pronome neutro. Poxa, isso já é legal porque se as pessoas começam a ler aquele jornal todo o dia e elas já vão treinar a mente delas, já vão ali começar a se moldar e fazer uma nova geração, uma nova perspetiva da coisa, né? E aí, pessoas fazem jornal, pessoas leem jornal e pessoas vão transformar a sociedade das próximas gerações. Então não há um movimento de um lugar só, há movimento de vários lugares que juntos vão criando esses movimentos de resistência. E então acho totalmente que a Ciência tem conexão sim, que ela pode tanto validar esses estudos na perspetiva de qualificar e de quantificar como também de cabecear as pessoas para a rua e pôr as pessoas para pensar. E pronto, eu acho que… e vai mudando, né? E isso é que é legal, que isso vai mudando também, que a gente defende hoje o que a gente fala hoje, daqui a trinta, quarenta anos pode ser que seja uma outra coisa e está tudo bem, ou pode ser que existam outras portas para se abrir e tudo bem… mas eu descobri outras cordas, eu descobri outras coisas porque lá trás eu plantei aquela primeira semente, foi o que a Beauvoir fez em ’49, ela plantou aquela semente, trinta anos depois a Buttler estava criticando ela por exemplo, para falar as coisas como ela viu o sexo feminino e masculino e mais pessoas continuam falando sobre isso em 2021. E agora a gente vai chegando, vai se aprofundando, né? Sempre existiu, mas pronto. A gente vai se aprofundando mais nas questões por exemplo do não binarismo, né?, do transgénero, são questões milhares que vão vindo. Se antes era só homem e mulher, talvez será cem anos atrás era a discussão mais prominente, agora têm outras discussões que estão acontecendo ao mesmo tempo. E nenhuma é menos válida do que a outra, mas todas elas vão tendo uma fonte de um movimento social, de um movimento científico que vai fomentando a fazer as pessoas quererem pensar e quererem falar mais sobre aquilo, querer se expor, pessoas que talvez sejam aquilo, que se identificam com aquele escrito, a se colocar a pesquisar, a entender mais de si, a entenderem mais dos outros para ajudar os uns aos outros. Então eu acho assim, que sem sombra de dúvida: a Ciência ela está, ela fomenta, ela tem esse poder de fomentar e pronto, a gente precisa de continuar falando, continuar escrevendo e continuar trazendo pessoas para essa discussão, para a coisa continuar crescendo e ainda mais longe. É a minha opinião, assim.

P2: Eu concordo com os pontos que a P3 apresentou e isso deixa-me a pensar um pouco num pequeno pensamento que é: só a través da investigação científica é que podemos fomentar mais investigação científica. Ou seja, a partir dos estudos formam-se outros estudos, a partir de pesquisa forma-se outra pesquisa, identificam-se necessidades de coisas que precisam ser investigadas mais. Então, nesse sentido, acho que é muito importante que continue a haver investigação e publicação acerca de variados assuntos porque só a partir daí é que começará a haver mais e mais pesquisa e mais, um maior desenvolvimento de certas áreas.

F1: E os efeitos… mas essas outras áreas também são áreas das políticas públicas, da decisão pública ou são xxx (01:05:31) digamos assim de construção de mais conhecimento.

P2: Quando a Ciência e a Academia só criam outros… ou seja, se não é criado outro loop de conhecimento que não é divulgado nem aplicado nas políticas públicas, aí estamos a incorrer num exercício desnecessário. Ou seja, poderá ser que todos os investigadores do meu departamento concordam e acham excelente a minha investigação, mas se isso não tem qualquer tipo de influência no… não só na Ciência e no mundo académico, mas também na perceção pública, nas políticas públicas, em tudo o processo de formação de sociedade, aí para mim torna-se um passo em falso.

P5: Agora, pensando no… levando isso para o Brasil, mas também aqui na Europa, na Hungria, na Polônia, que a gente tem governos que são anti-ciência. Então há uma discussão que xxx (01:06:37) e só fica no espaço académico ou só fica na bolha acadêmica. E eu estava lembrando de uma coisa que P7 falou, que tem línguas, de facto, que não têm género, não tinham, por exemplo na África têm dialetos que eles não tinham essa diferenciação entre homem e mulher e isso não existia na sociedade deles em muitas tribos. O que tinha era questão de hierarquia, era de idade: os mais velhos tinham que ser respeitados pelos mais novos, mas não tinha a palavra homem e não tinha a palavra mulher e esse conceito foi introduzido pelos britânicos, que eles colonizaram a região e dai uma das coisas que eles impuseram foi os géneros binários.

P7: Você conhece a história do índio Timbira?

P5: Eu não sei, acho que não.

P7: Eu, é como disse, né?, eu só li no assunto, mas há tempos atrás vi uma entrevista da Rita Von Hunty, não sei se você conhece, e ela estava falando disso, porque a América Central, da América Central para baixo, eles tinham, eles não tinham género ou até tinham até uma espécie de, mas tinham… a pessoa que conseguia, por exemplo, cuidar de crianças e ir para o campo, era um ser abençoado. E quando chegou… os portugueses, quando chegaram os espanhóis, eles infringiram na galera a separar os géneros. E pelo que a Rita Von Hunty tava falando na entrevista foi: quando chegou, quando chegaram os portugueses ao Brasil, eles repararam no Timbira, né?, que ia para o campo e à noite nos seus rituais arrastava a saia nos rituais dos índios e quando os portugueses viram que ele usava saias à noite, pegaram na aldeia, sentaram eles e colocaram, colocou o índio na frente do canhão e explodiu ele no meio, na frente da aldeia e disse: “A partir de hoje ou você é homem ou você é mulher. Esse comportamento bem em cima do muro não pode existir”. Foi um comportamento levado para América no caso. E quando você estava falando disso, eu me lembro dessa entrevista porque realmente, até na… como é que se diz… nas religiões da Bahia e coisas do género, também são derivadas da África, os Orixás e as xxx (01:09:32) se vestem como mulheres e são homens. Ou seja, isso foi uma coisa que nos foi ensinada e agora o pretende-se também, digamos, desensinar ou voltar àquele conceito que a gente tinha, vai, eu acho que leva também o mesmo tempo, né?, porque lá está xxx (01:09:55). Mas se você é um pesquisador disso também, eu acho ilegal… já tentei ver na internet, mas lá está, esse tipo de informação alguém falou há pouco sobre uma bolha que é criada dentro da Ciência e depois não é divulgada e se você faz uma pesquisa, você não consegue chegar a tal informação tão de pressa. E eu até gostaria de ter aprofundado mais a história em si, porque ela falou de uma forma muito resumida.

F1: Ok, muito obrigado. Se calhar passávamos agora, porque o tempo está a esgotar-se também num certo sentido, passemos para o terceiro tema, por favor F2.

F2: O terceiro tema é, conseguem me ouvir? Então: “Acreditasse geralmente que o setor acadêmico não gera valor suficiente para a sociedade. No entanto, outros sustentam que a investigação académica gera benefícios de muitas maneiras. Na Suécia, através da aplicação de uma nova versão do enquadramento de um chamado ‘Sistema de Inovação Tecnológica’ à Nanotecnologia, os investigadores encontraram um forte padrão de impacto da Ciência, incluindo uma comercialização substancial. Com tudo, o efeito das atividades científicas é limitado por fatores exógenos à academia: falta de conhecimento sobre os riscos ambientais e de saúde, incertezas institucionais e de mercado, políticas mal coordenadas e acesso insuficiente ao capital relacionado com a inovação”.

F1: Se quisermos…

P1: Para mim…

F1: Diga, diga, diga…

P1: Para mim é um pouco absurdo pensar que o setor acadêmico não gera valor para a sociedade, porque acho que tudo o que a gente tem de avanço em muita coisa passa pelo setor acadêmico, pela pesquisa, né? Então, acho que tem um desafio de às vezes penetrar na sociedade. Então, se a gente pensar desde estudos sociais até estudos de engenharia, essas coisas depois de pesquisadas e estruturadas, precisam penetrar nas sociedades, na cultura, na produção eu acho que esse é um desafio, né? A gente poderia até pensar, estudar novos jeitos de viver a cidade, mas depois é precisa ser aceite pela cidade, implementado, né? E precisa penetrar a camada política e isso acho um grande desafio. E mesma coisa com tecnologia, por exemplo. As tecnologias sustentáveis, de carros… estão aí há muito tempo e teve que penetrar o lobby automotivo e a indústria do petróleo para poder chegar e virar algo corrente. Então acho que o problema não é o que é que está gerando de valor, mas é como é que a gente está aproveitando disso, não é? E eu acho que isso está totalmente relacionando com o que a gente estava falando mais cedo de acesso ao conhecimento científico. Imagina, se a gente vesse uma pesquisa que vai investigar o jeito de revolucionar o avanço do aquecimento global e ninguém está dando bola porque ninguém quer mudar todas as indústrias ou fechar fábrica. Se a sociedade inteira soubesse disso, talvez tivesse uma impressão muito maior da… gente vamo dar atenção para isso aqui? Então acho que essas duas coisas estão relacionadas, né? E acho isso tem a ver com fatores exógenos também. Acho que agora a crítica à academia, né? Às vezes a academia é uma bolha muito fechada e às vezes é muito pesquisa pela pesquisa, né? E tem mil projetos que são só para portfolio do pesquisador e para manter a pesquisa rolando e ligar o nome… Então acho que tem muitos fatores envolvidos de… mas de nenhuma maneira seria a conclusão de que o setor acadêmico não gera valor. Acho que a conclusão xxx (01:14:26) tem muitos obstáculos e se a gente quiser abordá-los em cada uma dessas esferas, não é? Como é que a gente resolve cada uma dessas coisas… estou olhando para cá porque o meu monitor tá aqui… É isso.

F1: Pegando nisto que P1 acabou de dizer, tentaria de concretizar este tema se calhar em dois tópicos iniciais, pelo menos para isto, que é, de facto, quais são os constrangimentos, digamos assim, ou os obstáculos ao impacto da Ciência na sociedade, por um lado. E por outro: será que o impacto da Ciência na sociedade só é medido pela mercadorização dos seus productos, pela comercialização, pelo impacto económico dos seus produtos ou há outras formas de nos referirmos do impacto da Ciência na vida social.

P1: Desculpa monopolizar a conversa, mas eu já tenho uma ideia aqui, que eu acho que o próprio acesso à Ciência, à pesquisa, ele já é transformador e isso tem impacto na sociedade não mercadológico. Então muitas vezes você entendeu um assunto novo ou vê alguma pesquisa que foi feita pode transformar sua cabeça e transformar o jeito que você se relaciona com a sociedade. E eu acho que a gente pode usar a Ciência Política como exemplo, né? Isso não é produto, mas tem poder transformador muito forte, nem que seja a transformação das pessoas que estão tocando, né? É você entender aquilo e passar a pensar de outra maneira e de repente você está transformado, você vai vê já a sociedade de outra maneira. E isso tem sempre super valor. Não é um produto mercadológico, mas eu acho cada vez mais a gente está quanto não é um produto não existe, aquilo não é nada. Não é dado valor, eu acho. Agora juro que eu parei, terminei.

P7: É do tipo… vou partilhar uma experiência que talvez seja aleatória, mas é o que estou absorvendo da conversa, porque a tempos atrás teve uma pessoa que me disse: “Você é maricas eu vou te dar uma tapa na cara” e eu falei para ele, falei assim: “Me da dois, mas depois senta aqui que eu quero te explicar uma coisa”. E os meus amigos por ele ter me ofendido pegou nele e bateu e ele foi para casa e eu briguei com os meus amigos porque eu falei para eles. Eu falei: “Ele tem tudo o direito de ser ignorante, porque ele não é educado para isso e se ele quiser dar uma tapa na cara tá tudo bem”. Para mim está tudo bem, porque há bocado quando a gente falava sobre passar informação científica e manifestar e por nas redes sociais, eu acho que para além de colocar nas redes sociais e manifestar, a gente tem que ter também a astúcia para defender nossa ideia, porque esse individuo que me bateu depois foi até no meu trabalho, me levou chocolatezinhos para pedir desculpas. Mas, entretanto, eu tive também uma briga muito grande com os meus amigos porque eles não tinham que ter… agir na violência. Violência só gera violência. Se ele entendeu que por eu ser viado ele me tem que bater, eu falei: “Me bate, mas depois senta aqui que você vai ter que me ouvir. Eu não vou te bater, mas eu quero conversar com você”. E eles disse que não, que não ia resultar, mas eu acho que é precisamente uma reação para se defender as nossas ideias, não só confiar na Ciência, mas… quer dizer, pode ser confiar na Ciência também, né? Transmitir para as pessoas essa mensagem que a Ciência está passando, está estudando, só que as pessoas não têm acesso. E eu acho que xxx (01:18:33), de tal maneira, eu pelo menos, do meu ponto de vista, e agradeço se eu estou errado que algum de vocês me digam, mas eu acho que ele tem todo o direito de ser ignorante porque ele não foi educado para tal.

F1: Mais comentários sobre os eventuais obstáculos da Ciência impactar na sociedade ou se… ou então, comentários sobre a forma como… será que a Ciência, respondendo, será que a Ciência, o impacto da Ciência só tem valor quando se traduz num objeto, num produto comercializável, vendável, uma patente, qualquer coisa.

F2: Pode ser P4, que levantou a mão, depois P3 e depois P6.

P4: Obrigado. Relativamente à primeira, o primeiro tópico, aquilo que sinto é que há uma parte relativa à academia e uma parte relativa mais a esses fatores exógenos. Os fatores exógenos são os de costume: interesse político, verbas, qual é o interesse do momento para isso, por exemplo. Historicamente sabemos que a Ciência foi alvo de investimento quando servia de propósitos militares, por exemplo, a corrida à Lua, entre os Estado Unidos e a União Soviética, como uma prova de força, de alguma forma, como uma prova de capacidade numa ótica meritocrática. Investiram-se bilhões de dólares para isso. Quando o foco não é tão militarizado talvez, a Ciência recai, se calhar para um plano mais secundário ou para um plano mais orientado à saúde, por exemplo. Na academia, acho que já aqui foi falado, acho que quem está na academia, tem que tentar quebrar a bolha que se cria e a forma como muitas vezes as conferências são para as mesmas pessoas que vão sempre lá e já conhecem os tópicos e têm as suas perspetivas sobre as coisas, e investe-se cada vez mais na comunicação da Ciência para todos e todas as pessoas que estão fora da Ciência e que possam ser um pouco capturadas para um pouco aquela curiosidade quase juvenil, porque toda a gente é curiosa até um certo ponto. E portanto é um pouco orientar os dois lados: fundamentar que a Ciência é necessária não só para propósitos militares ou de saúde, tem muitas outras aplicações, umas mais utilitárias que outras e também que a Ciência e a academia pode fazer um melhor trabalho em comunicar como é que esses investimentos traduzem-se em aplicações concretas. Por exemplo a corrida à lua deu-nos contentores de gás pressurizados, que são basicamente latas de spray, temo-los por causa do desenvolvimento da investigação que fizemos para isso. Também temos colchões com *memory foam* que foi derivado de isso, há montes de tecnologias que vão sendo diluídas para o nosso dia a dia, só que uma parte das pessoas não têm acesso a isso. Sobre a ideia do segundo tópico, todo conhecimento, mas eu sou investigador, portanto, sou o nerd máximo, portanto posso ser um bocadinho *biassed*, todo conhecimento é ótimo conhecimento e acho que é ótimo fundamentar a curiosidade de perguntar e questionar um pouco mais além. É normal que quando há dinheiro envolvido as pessoas seguem por um princípio meramente utilitário e acho que faz sentido prioritizar algumas dessas coisas, mas o conhecimento não tem que ser só isso e a Ciência é perfeitamente válida para só para responder os porquês mais básicos de todos, como porquê é que chove, será que estamos sozinhos no universo. Todas essas questões são válidas e são merecedoras disso. E acho que a Ciência pode enaltecer isso, acho que todos e todas nos beneficiamos.

F1: Obrigado P4.

F2: P3, sim?

P3: Eu só vou continuar, P6 a verdade já colocou alguns tópicos aqui… oh, desculpa, P4 falou quase todos os tópicos que eu já tinha anotado aqui, então nem preciso falar da questão dos obstáculos e do impacto direto, porque acredito seja o impacto, pronto… como hei de falar de projetos e projetos de áreas humanas, biológicas, exatas, whatever, eu acho que todas têm a sua importância em determinado ponto porque, claro, é importante sim desenvolver uma fonte de energia eólica, é importantíssimo, cara. Vamos fazer isso. A gente precisa disso para um mundo sustentável, mas também é importante eu ir numa comunidade no bairro de Lato e conversar com os moradores ali, ajudar eles a terem uma economia local fortalecida, ajudar eles a saber fazer uma casa, porque eles não têm acesso, entendeu? Então isso também é importante. Então acho que essa coisa também que P4 falou dos obstáculos, dos investimentos, eles acabam por reproduzir aquela lógica, né? Então, por exemplo na minha universidade no Brasil a gente tem altos investimentos na área da Engenharia, né?, da bioeléctrica parará, pororó, e na área das humanas e Sociologia, Antropologia, essas coisas, os investimentos eram mínimos, as bolsas eram nada. Então uma bolsa de estudos em Engenharia eram 1,200 para trabalhar quatro horas por dia, uma bolsa para trabalhar nas humanas era 400. Então isso acaba também por cortar a produção, isso afeta diretamente a vida da gente na academia, porque se você não tem investimento como é que você vai poder produzir? Se eu sei que vou entrar para trabalhar nas áreas humanas para ganhar 400, para que vou fazer isso se nas xxx (01:24:34) vou ganhar 1,200. Então, isso também acaba diminuindo o interesse das pessoas de pesquisarem e de acessarem a essas áreas. Mas, partindo pelo impacto diretamente agora que eu falei dos obstáculos sem querer, eu acho, eu vejo vários impactos na área da inovação… P4 falou da coisa da viagem à lua e isso só para falar o básico, que a gente tem várias outras coisas, né? Automotivo, energia, whatever, o pensamento crítico que eu acho que também… a pesquisa, como a gente já falou, a divulgação de esses dados, ajuda as pessoas a pensarem, a se colocarem, poxa, a água do mundo está acabando, poxa, a mudança climática, poxa… e isso pode gerar uma mudança no comportamento da sociedade que também vai gerar uma mudança política e isso assim: a academia, política, sociedade, é tudo ligado, tanto por bem, quanto por mal. E o outro impacto e a maioria de vida das pessoas, que eu acho que a pesquisa tem esse poder, não só a pesquisa xxx (01:25:30) como perguntar, ou estudar ou fazer ali, mas também aplicação, porque o processo de pesquisa é também muito importante, né? Porque ali você vai ver, é você aceita as possibilidades, impossibilidades e aquilo vai-te abrir o olho às vezes para outras coisas, numa visão holística do facto. Pesquisando uma coisa, no meio do caminho descubro até outra. Então eu vou trabalhar também com essa outra coisa, vou mais tarde pesquisar essa outra coisa também, porque ela apareceu no meio da minha pesquisa. E com isso você vai conseguir melhorar a vida das pessoas. E isso para dizer o mínimo. Então, acho que essa é uma parada legal assim, sabe? Da Ciência e da pesquisa, esse poder fazer sempre mais, esse poder sempre ajudar as pessoas e poder… não sei, mudar enquanto sociedade. A gente, se a gente comparar o que nós éramos, sei lá, há dois mil anos e o que a gente é hoje, realidades totalmente diferentes, né? E nos últimos anos, os últimos 100 anos, se a gente parar a pensar e isso vai, a gente consegue ver, consegue, sei lá, enxergar uma mudança… não nos últimos 100 anos, mas vou falar depois da revolução industrial principalmente, a gente consegue perceber o salto que a sociedade deu, do que ela tinha até ali, até aquele ponto, e do que ela foi construindo de lá para cá. E isso foi com Ciência, com Tecnologia, com desenvolvimento de novas energias, novas coisas, tudo mais… as alterações económicas. Então acho que o caminho é longo, tem muito ainda a ser feito e a Ciência, sem dúvida, ela está no meio disso e a gente tem mais que usar isso mesmo para poder fazer as coisas acontecerem, né? Tanto na área exata, quanto biológica, quanto humana, tudo o que a gente puder fazer.

F1: Obrigado P3.

F2: É P6, agora. P6, força.

P6: Na realidade acabaram por dizer um bocadinho aquilo que eu já queria falar, mas fiquei um bocadinho preso a esta primeira frase, sinceramente: “O setor académico não gera valor suficiente para a sociedade”… saltando um bocadinho para a questão, se calhar de um pensamento mais em massa, é que o setor acadêmico acaba por ser um bocadinho… não falando da minha opinião, mas sim falando da opinião geral e que tenho ouvido, que o setor acadêmico é elitista. Ou seja, também por causa da questão linguística, por causa da questão por exemplo fazerem debates muitas vezes repetitivos ou que efetivamente nem toda a gente pode frequentar ou ver, mas acho que hoje em dia também isso está a rebater sobretudo com a parte do ensino. Ou seja, o ensino académico cada vez mais com a criação dos politécnicos, estou falando em Portugal, com a criação de politécnicos e polos universitários não só nos grandes centros como Lisboa ou Porto, não é?, porque também há sempre essa ideia que toda a fonte de conhecimento está a ser gerada nas grandes cidades… e depois outra questão que me ficou aqui bastante nesta, neste slide, foi as políticas mal coordenadas, não é? Porque tudo que é conhecimento acaba por estar um bocadinho limitado por assim dizer, das políticas de cada país, dando por exemplo, alguém quer fazer um… quer tirar uma licenciatura, não é? Há países que por exemplo isso, o grau académico não é pago, ou seja, facilmente podem aceder a um ensino superior. Há outros como por exemplo América tem-se que estar a trabalhar tipo até uma determinada idade para poder ter esse grau académico e chegar ao conhecimento. Portanto, acho que é mais ou menos isso o que eu quero acrescentar porque, pois, do resto acabaram por dizer mais ou menos o que eu também queria.

F1: Ok, obrigado pelos. Não sei se há mais alguém inscrito, deixem-me aqui ver se há alguém a se manifestar… que gostaria de acrescentar mais alguma coisa… não. Bem, se ninguém tem mais um comentário para fazer, são 20:06, estamos mesmo em cima da hora prevista e daria por terminada esta sessão, agradecendo mais uma vez a vossa disponibilidade e ainda mais agradecendo os vossos comentários e as vossas opiniões que fortalecem e enriquecem aquilo que é a recolha de informação de este projeto para podermos, de algum modo, termos uma perceção mais sensível também e depois comparativamente com outros países sobre os impactos e perceção do impacto da Ciência na vida das pessoas. E resta-me agradecer mais uma vez a vossa disponibilidade a estas horas de uma quinta-feira para partilhar connosco as vossas opiniões. Muito obrigado.

F2: Obrigado a todos e a todas. E vamos continuar em contacto. Muito obrigado, grande abraço.

### Women (including vulnerable women)

**Facilitator:** ...recording button, I think it's working now… in terms of methodology, our focus group will be based on the egalitarian dialogue. The objective is that everyone should have an opportunity to answer every question because your individual opinions and experiences are important. And before we start, would you like to introduce yourselves and I can start with myself. My name is XXX. I'm a senior research fellow in the Ratcliff Department of Medicine, based in the John Radcliffe Hospital on Level seven. This focus group is conducted as part of ALLINTERACT project that tries to find ways to engage citizens in science in various ways as public contributors, participants and also citizen scientists. To proceed, I'll invite people according to the order on my screen, which I guess is random and different from your order.

**Participant 1:** Yeah. I'm Participant 1, and I'm from Edinburgh, originally living in Lanarkshire, and I've not done a focus group on this particular topic before, but I have a I have an interest in science and baffles me why most of the people that I'm friends with don't. I am involved in my research through Oxford for health conditions I have a lived experience for, so I'm really passionate about research and really keen to find out more about this and to help in whatever we can.

**Facilitator:** Thank you, Participant 1. Participant 2.

**Participant 2:** Ok. Hi, there. Did you say, Participant 2? Yeah, hi. Yes, hi, I'm a carer living in London. I've done quite a bit of paperwork. I've got a science that I've always been interested in science. Myself and my, I think my grandfather used to talk to me about it when I was a child. So that kind of gave me encouraged me and I did do. I was involved more directly in biomedical science research. I found it a bit too. Native to Canada demanding for me, but I really enjoy these kind of opportunities doing joining the focus groups during lockdown, it's been great. It's been so many things I could join remotely, which normally would be in different parts of the country. So I think that's been very accessible. And the website, such as people in research and so on, which give opportunities are very user friendly. So that's been great. So I've really enjoyed contributing as best I can. Thank you.

**Facilitator:** Thank you, John. Participant 3. I'm afraid we can't hear you if you are mute yourself,

**Participant 3:** Oh, sorry, sorry, can you can you hear me now? Yeah. So I'm assuming my I am in London. I do quite a lot of patient-focused things, so I belong to a primary care group. I am also part of a niche as a I do environmental things. I look up to mother and toddler groups. I have a god, I do a faith garden, so I do lots of things. But but I have no interest whatsoever in science as such. So and I am different from the others. But having looked at what science is all about is it comprises of all sorts of things. So we'll see how we go. So that's me.

**Facilitator:** Thank you Participant 3. And Participant 4,

**Participant 4:** Hi, I'm Participant 4. I'm in Buckinghamshire. My I have done quite a lot of PPE groups and committees, and I'm on the Health Watch Box Advisory Panel. But my career was in law and when I retired, I wanted to be involved and do something other than law. So that's why I sort of got involved with PPE work and I'm interested. I think at the moment, what you're looking at is is of great importance, perhaps more than it was years ago, and that's why I thought I applied.

**Facilitator:** Fantastic. Thank you, Participant 4 and Participant 5.

**Participant 5:** Hello, everyone, I'm Participant 5, I have been doing people for about four or five years on and off, and I have done quite a lot of focus groups, quite a lot of sort of feedback and sort of workshops and things as well. So yeah, I mean, I've got a kind of marginal interest in science. I wouldn't say it's a huge interest, but I'm open to find out more. I think my keen sort of passion is about getting people involved who might be from underrepresented groups, whatever the subject may be. So, yeah, really keen to sort of get involved here. I'm currently on maternity leave. I am a marketing manager by occupation. But do people sort of to mix it up into a community? So happy to be here and help with all?

**Facilitator:** Fantastic, thank you so much, Participant 5. And. Let's start with the questions, we have five major questions which require discussion, and the first question is how do you think citizens benefit from scientific research? This is a general question, and the more specifically, it would be very valuable to hear your examples based on your personal experience. For example, some of you might be patient advocates or members of a patient group, and so you share and discuss new scientific research with your colleagues and friends. Some of you might participate in a citizen's science project. I don't know Local Birdwatch project, and you may just share some scientific information or in your research that you hear on TV or radio while talking to your family and friends. Or some of you might be on social media and you share this type of information. So all sorts of ways in which you think citizens benefit from scientific research.

**Participant 2:** Right. My partner. I'm sorry, are you going? Sorry, I just put my hand up, it's that better.

**Facilitator:** That's fine. Go on.

**Participant 2:** First thing that comes to mind is my partner has had a number of eye conditions recently, and we've attended Moorfields, which we're lucky enough to live nearby to, and it's been some of it. He was invited to the research department because they saw his case and thought they'd be able to. He'd be eligible for that because of some of their research projects. And you had a wonderful experience there, and they were very attentive and kind and helpful, and it really helped him get to grips with what was going on with his eyes and in a very. Is very sort of relaxing environment, and we're very encouraged by that research that's happening, and it gives him hope for the future, and it gives him a sense of satisfaction that he's helping the people. So that's maybe one example. Thanks. And that kind of thing you're talking about, not so much.

**Facilitator:** Yeah, that's great. Is there anybody else who wants to continue?

**Participant 1:** I was just going to kind of back up what Participant 2 was just saying. It's in medicine where I personally have, I suppose, benefited and and see the most benefit and where I'm involved. So, for example, my partner has a rare, a rare disease called ataxia. And there's it's not very widely known. And there is not that that many sufferers compared to something like cancer or Alzheimer's. So I do spirit try and spread awareness of research in that area for people that don't know. I'm also a cancer survivor myself and participated in a trial during my treatment. And I also participate in there's both Alzheimer's and Parkinson's disease in my family. So I participate in projects as a healthy volunteer because obviously it's important not just for people with diseases, but for people without disease so that they can have a control group. So I think for me, that's where the raising awareness of the research, but also the whatever the subject matter is that goes along with that research.

**Facilitator:** Oh, thank you, Participant 1. It looks like Participant 6 has rejoined us. Do we have sound now? Hello, I have someone called Becky. Can you hear us? No, I'm afraid we're still don't. Can't hear you. Oh, Participant 6. Hello, Participant 6. Now, I'm afraid we can't hear you. So, Participant 6, maybe uh, if it's impossible to resolve the sound issue, you could contribute your answers via the chat box. Fantastic. And, Participant 6, just to repeat, the question that we are discussing at the moment is how do you think citizens benefit from scientific research? It is a rather general question. And so you're all sorts of insights or opinions would be welcome, especially based on your personal experience. For example, it could be something about being a patient advocate or participating in a research project or just reading information on the internet and discussing it or sharing it all sorts of ways that you can think citizens benefit from scientific research, especially based on your personal experience, but would be very welcome. Uh, and can we go to the next participant, please, who would like to speak? I may not go on.

**Participant 3:** Sure, sure. Although I said I have no interest whatsoever in science, but if you change it to medical research instead of talking about scientific research, if you say medical research, I have great interest in that because it's not only just the medical medicine, said what we talked about, also how the environment impacts upon our health. So, you know, things like air pollution have that has a big impact on our health. The other thing recently was the Covid, how research has really helped us to move on quite a bit with all the Covid research that was done. So there is absolutely we do need to think about how different types of research impacts on our health, our family's health and how the whole world really.

**Facilitator:** Participant 5, you are next.

**Participant 5:** Yeah, I mean, I am very similar to me that my interest definitely around sort of health research and science is much more important to me, but I think the most recent incident has been the birth of my little boy. He was born premature and was weighed 4lb when he was born. And I, you know, I've been telling anyone who will listen how amazing the help and the doctors and researchers were during that time. And you know, they were so attentive. They've given us information at every stage of the process. We didn't understand. We didn't know why he was born early or why he was so small. There's no reason behind it. But we've had brain scans, we've had blood tests and everything, so my baby's purring now. And if you can hear that in the background. But we've had so much support and we've sort of found out so much about sort of health care and babies and science along the way as well. So I'd say that's probably the sort of most recent incident of that. But we've also I've also done lots of work on prostate cancer because that's in my family. There's a high proportion of African or Caribbean males who have fat. So I've been trying to help with that and widening participation with that as well. So there's lots of different things along the way, but they'd probably be the most important ones that I've done today.

**Facilitator:** Thank you, Participant 5, and we have a contribution from Participant 6 via the chat box, and Participant 6 is saying that she participated in a patient active in research group for the biological research people for several years and have recently done an online yoga for Old People research project by the University of York. Thank you, Participant 6, and you have your hand raised. Are you trying to test your microphone or you just wanted to draw attention to the comment in the chat box? Yeah, that was related to the comment I take and who hasn't had an opportunity to express their opinion. Participant 4.

**Participant 4:** I think the sort of most pertinent thing I can add is I saw an awful lot how research improves health system health situations. When I was a member of the Specialized Commissioning NHS Specialised Commissioning Group, where rare diseases, when when research has been made and you know, a new medicine or treatment has been found, the the impact it has is is quite amazing to see. And because I only I saw it mostly for rare diseases, there weren't many people in the country who could see the results of the scientific research and work that had gone into providing this new medicine or this new treatment. But but the impact it had was tremendous for, you know, maybe 10 people in this country who had the specific whatever disease it was. So that's where I think it sort of opened my eyes to how amazing it would be if everyone knew, you know how wonderful it is when research is is is used properly and, and, you know, targeted in the right way. And I think that's that's one of the problems with everything, really. It's communication, you know if everyone knew, it would be easier, it would be easier.

**Participant 6:** Can I try again? You could hear me. Sorry about that.

**Facilitator:** Oh, but we can hear you now.

**Participant 6:** Good.

**Facilitator:** Oh, fantastic. Sure. Participant 2, would just like to go next.

**Participant 2:** I don't know if I'm there twice. It's Jesse, also me. This is on my screen, it's got my. Ok. Because I put my hand up, I guess. All right, so it's not me. Thank you. Yes. I can't remember now if what I'm saying fits the question exactly. Could you remind me of the question

**Facilitator:** How citizens benefit from research?

**Participant 2:** Yes. I was just going to say another thing about joining another benefit of joining events such as this and how interesting it can be and how much it can build people's confidence. So that's another benefit. And you mentioned about birds, and yes, certainly a lot of I have a lot of general interest, as do my friends in research in the natural world and space and general science in a broader sense. But yes, so many things in medical research, which are wonderful and we benefit from. Thank you.

**Facilitator:** Now, thank you. And Participant 6, you have your hand raised.

**Participant 6:** Yeah, it was just to say I was going to try, but we don't need that now because I'm on, you know, I'm on camera as well. So I'm not quite sure, actually, oh, we've just about done or it's just medicine or science in general,

**Facilitator:** Science in general and preferably based on personal experience. Hmm.

**Participant 6:** Um, right, sorry, if you're waiting for me, one thing I was thinking about prior to this meeting was actually sciences entertainment. We always used to watch the royal, whatever it is, the Christmas lectures. And certainly when my son was young and about 25 years ago, there was a brilliant television program called Rough Science, which I think is available on YouTube, where groups of scientists were set projects to do with little or no equipment. It was very good, and he led them to lots of practical, hands-on science. And I also listen to inside health and inside science and more or less on Radio four as well.

**Facilitator:** Thank you, Participant 6. That's a great comment. And can you think of barriers that prevent citizens from benefiting from science and from scientific research? And this could be about having access to to to science or not having opportunities to to get involved in projects, all sorts of barriers or maybe even I.T. barriers not being able to access information on the internet.

**Participant 6:** Are you asking me or every? Right.

**Participant 2:** Having meetings often in this kind of meeting in the daytime, which is understandable, I suppose, could exclude people who can't work. I mean, it works very well. But you know who are at work full time somewhere, they can't, can't do it. Thanks.

**Facilitator:** Yeah. Great. Participant 4.

**Participant 4:** I think thinking of it the opposite way is I think an awful lot of people now are getting so much wrong information on social media. And also, of course, all the virus over the last few years or the misinformation. I think that's the biggest challenge and the biggest barrier to allowing and showing people how much they can benefit from taking part in research. And of course, there are lots of sort of restrictions being put up by Facebook, et cetera, to stop all the misinformation. But it's difficult, I think, to to for people to read the truth. So again, I go back to communication, you know, if if research. Put the information in a clear, precise way so people can understand it. I think that would help a lot.

**Facilitator:** Oh, fantastic. It's a very valuable point, Participant 4. Thank you, Participant 1.

**Participant 1:** I just was jotting a few notes down there as they sprung into mind. I've got a few here barriers to benefiting from research, I think could be just things like lack of awareness of the research, maybe lack of means to actually participate in the research, maybe the feeling that they don't have anything worthwhile to contribute. And that might be because they don't really understand the research process or maybe the need or importance for research and also maybe a perceived lack of skills. Maybe people think that you need to have a degree to be able to understand it or, you know, some sort of qualification or experience in the subject area. I'm trying to think of my own family. What would you know, the younger members of my family in particular that would maybe prevent them from accessing research or participating in it, and those are definitely the ones that spring to mind immediately.

**Facilitator:** Fantastic, thank you so much, Participant 1. Participant 2, you have your hand raised.

**Participant 2:** Yes, in fact, most of the points I was just going to add were raised by Participant 1. I would second what she said. The lack of confidence and people feeling they would have to be very scientifically skilled, knowledgeable and generous, and generally some people have a sort of. Fair science being so complex, certainly, and not knowing how to to access it, so yeah, those kind of areas, and I think that's probably all at the moment. Thank you.

**Facilitator:** Thank you. Participant 6.

**Participant 6:** Continuing from what Participant 1 said, it's the old thing of the two cultures, isn't it, that basically it's education? I mean, I left school with maths as my only vaguely scientific qualification at O level, and I probably had to work quite hard to. Learn more about science subsequently and. They don't teach analytical thinking in school, particularly nowadays, I think it's there's so much emphasis on rote learning. And what I think is needed is teaching kids to read a website critically and just to feel confident. I used to teach American undergraduates medieval literature, and I can remember one Stanford student I had who was majoring in aerodynamics, who just came along and said, Yes, of course I can read Chaucer. What's the problem? Because their education system teaches them to be so much more flexible.

**Facilitator:** Interesting. Thank you so much, Participant 6. Karina, you have your hand raised.

**Participant 5:** Yeah, I think mine's probably a bit more of a wildcard because, yeah, a lot of my other sort of thoughts are already raised as well, but I was also thinking about sort of understanding sort of the onward sort of process as well. So why would why would they want to get involved in science? What does it really mean? How does it impact them and their lives going forward? And how can the research be sort of implicated, I guess? And how can it help members of their community? And I think sometimes that is quite important so that people feel that, you know, what they're doing is going to sort of resonate with them, but also that it makes a difference to people like them.

**Facilitator:** Fantastic, thank you. And there is research showing that there are gender differences in how people participate in science and how people benefit from science. Have you experienced any and any examples of of gender differences in science or in scientific research? For example, some inventions are applicable only to one gender, and they are only applicable to to another gender. For example, in medicine, especially in older days, drug many drugs used to be developed by male scientists and patients who participated in trials where predominantly male patients. So the adverse effects and dosage of the drugs were not properly adjusted or targeted for women. So women benefited less or even had adverse effects from these new drugs. Have you experienced any say any examples of of scientific advances that are not equally beneficial to to to different genders? On Ask Me Now.

**Participant 3:** Just you just excuse me, just to hold me to forward a little bit, it's not only gender, it's ethnicity as well. So a lot of research, if you look at things like BMI, I've done on white Americans and it is no the impact of those type of research on ethnic groups is huge because we are told that our children had small. Or they are very petite when in fact, the research is done on white Americans and it has no bearing whatsoever on our other groups. Even the white Europeans, it doesn't have any bearing on it. So there is a lot of issues here. So you are right.

**Facilitator:** Thank you. Participant 2.

**Participant 2:** Possibly going slightly off the point, but I was thinking about when I was at school, it was always I never felt any sense of that women wouldn't be, you know, valid contributors to research and science. But it was the case that the girls, the grammar school, the girls grammar school I went to, we did biology and to do chemistry and physics, we had to go to lessons at the boys school. So there was that historic sort of. And things like engineering and so on were never on the radar. And and nowadays, when I think about how things work and that side of things, it's all fascinating. But I never even thought of it as something that a woman could go into at that time. And maybe, maybe younger women. Now it's more the barriers down a bit, as said, part of science that that didn't part of science. Thank you.

**Facilitator:** Thank you, Participant 2. And Participant 4.

**Participant 4:** This is already, though, being taken into account in a lot of projects. I know we all know about it, but we're now being told that the virus affects men and women in a different way. Different ethnic groups are affected in a different way. So people are becoming aware already of what it means, you know, in certain situations, in certain groups. Just something to throw in.

**Facilitator:** So thank you. And Participant 3 you wanted another go.

**Participant 3:** Yes, you take a little bit further. Did you know that even faith groups have been effected differently? So different faith groups have been effected differently with COVID and that research has only come out yesterday and I was quite shocked at that, actually. So, you know, if you guys want to know about it and send you the the link.

**Facilitator:**  Thank you. Participant 1.

**Participant 1:** Yeah, I may be going off on a slight tangent here, but this group is a perfect example of what I was going to say is that all the PPI and focus groups and and market research and any kind of research I've ever been involved in is very heavily female, dominant the participants. So I don't know if from that side of the research that women generally have, I could be generalizing. Maybe it's just the things I participate in, but definitely there's always way more women sometimes like in this group, there's no, you know, apart from yourself, Facilitator, there's no men taking part at all. So I don't know if there's something at play there. Why it seems to be more women want to participate in research than men. I don't, I don't know. But it's definitely an observation over all the all the research that I've done, although the people leading the research are, you know, it's 50 50 male or female. The participants tend to be it's almost I would even go so far to say it's about, you know, 90 10 in my experience, women to men.

**Facilitator:** Thank you, Participant 1.

**Participant 4:** I thought this group was aimed at having women. Is that right?

**Facilitator:** It is correct. Yes. And, Participant 6, you have your hand raised, or is it an old hand?

**Participant 2:** It's an old hand. I'll take you down. Thanks.

**Facilitator:** And Participant 6, is it an old hand?

**Participant 6:** It's an old one, too. Okay. I mean, I quite agree. Having read Caroline Criado book on the way in which society is biased against women, I think that the medical point you made Facilitator is now. I mean, it's sold so well. If people actually read it, it's probably more widely known than it was. She's very good on that. Yeah.

**Facilitator:** Thank you, Participant 6.

**Participant 6:** Also, actually, the bias can work the other way. In fact, my son, it was. Take them for granted. He could do maths and. Was accelerated, and then no one could understand when he sort of hit up a block and and couldn't actually manage to get an A-level in math, Sony and yes. And I think that was quite harmful for him, actually. People's reaction?

**Facilitator:** Thank you, Participant 6. And we're moving on to the next question, how do citizens, including you personally, your family, colleagues and your community become aware of the impact of scientific research, including medical research and any other research, for example, by reading academic journals, attending public talks and presentations by scientists, by reading newspapers or listening to the television or radio. Or maybe some of you are on Twitter, Facebook or any other social media and your exchange this type of information. Any opinions and contributions are welcome. Hello, Participant 5, you would like to start.

**Participant 5:** Yeah. So I would definitely say that my age group, so I'm technically a millennial, so I definitely get a lot of my information from social media, but also from the daily news. And actually, that sort of presents some issues, doesn't it? Because usually those forms of communication are snapshots. They don't give you the context or the detail. And I suppose you'd need to be have some level of curiosity or interest in science to really delve deeper. Want to go into sort of scientific journals, which I suppose would give you a wider understanding, a little bit more information into whatever the subject matter is? So yeah, that's how I sort of digest the information usually really quick headline news type things, but I wonder whether that presents issues. Yeah.

**Facilitator:** Thank you, Participant 5. Participant 1. We can't hear you.

**Participant 1:** Sorry. I'm with Participant 5 on this one. I am usually made aware of scientific research via social media, Twitter, Facebook, YouTube on on Twitter. A lot of it gets tweeted into my timeline audits from organizations like Cancer Research UK that I follow on Facebook because it works on algorithms. Once you've read one bit of research, it kindly feeds you lots of other bits of research, so I find about some really bizarre things that I would never normally go looking for. So I think it's quite good in a kind of like find it out about general research that's going on. Youtube is similar, so if I look up a particular topic within that video, there's then less of other similar videos or just in the same subject matter, and it's the same with charities. So recently, I've been participating in Parkinson's research and now I have other charities, research projects coming up in my social media feed. So it's quite it's it's one of the ways in which the algorithm is beneficial. I don't normally like the algorithms on social media, but I quite like how it's introducing me to lots of things I wouldn't normally I wouldn't normally know about. And then when it comes up, I will click into it. And I don't read the scientific journals usually, but I do read the articles, you know, kind of summarizing them.

**Facilitator:** A fantastic thank you, Participant 1. And Participant 2.

**Participant 2:** I'm showing my age, but either way, I would find out would be just partly religious reading the national press or London newspapers in the sections they often have about science... you know, general articles about all sorts of aspects of science. And I just, you know, tear them out and keep them. And also with with science to do with the natural world and history and so on, I might attend in societies and talks and learn about it that way. I'm not really on social media, so I learned about it from there. Thanks.

**Facilitator:** Thank you, Participant 2. Is there anybody else who would like to contribute your opinion? Go on Participant 3.

**Participant 3:** Excellent. Thank you very much. So I go to Twitter and Facebook and all that bit. But what Zoom and Teams have done in the last two years is connected as worldwide. So for our community, we have got a lot of scientists... in our community. So what we are doing is every week we have something about health, environment, space, whatever. So worldwide we are connecting with each other and seeing. So it's not just British research. It is worldwide research we are looking at. So, you know, for our specific community, we I think we are doing well.

**Participant 3:** Thank you. And, Participant 1, you have your hand raised again.

**Participant 1:** Yeah. Just one thing I completely forgot. A documentary is a really big way that I learn about research -- Netflix, BBC iPlayer. I'll just go into the category and just scroll until I think, well, that sounds quite interesting. That's something I... don't know anything about, and I'll just watch it. And then, you know, you just kind of learn random things. I love it. And then that becomes a topic of conversation with, you know, friends and family.

**Facilitator:** Yeah, great. Thank you. Participant 1, Participant 2, you have your hand raised again.

**Participant 2:** Yes, I forgot. Certainly, television programs, as you say, documentaries in the Christmas lectures and people like Brian Cox and things who make it all quite accessible, encourage one to listen to it. Thanks.

**Facilitator:** Yeah, thank you. And a related question about barriers that might exist and that might preclude citizens from from learning about the impact of scientific research. What could these barriers be?

**Participant 4:** It's possible that some people may not speak English. As well as someone who does and can understand when they're reading about something in a newspaper listening to a documentary, I know myself that my mother doesn't understand the English language as well because she comes from another country. So when we watch something that is a serious subject on TV or if if I'm reading a newspaper on my iPad to her, I have to explain, you know, in far simpler language. So I think that could that is, I'm sure, a big barrier for a quite a lot of people in in any country, you know, because science is not an easy subject, and that's why it's always better. I think if it's put in a very simple way, the the Professor Cox type documentary is is quite straightforward in most cases to to understand. So that's nice that things have become a lot easier for people to understand. Whereas 30 years ago, if it was a scientific program, it would be, you know, impossible to understand for most people and young people. So yes, I think that that's one barrier.

**Facilitator:** Yeah, that's a very important point. Thank you. And Participant 1, you have your hand raised.

**Participant 1:** Yeah, I was going to say again thinking about the younger members of my family. I think a lack of interest in research is a barrier because a lot of them, unless it would personally affect them, they're just not interested. I don't maybe they didn't do well in science at school or maybe their perception of what science is and then how that relates to the real world. They just don't understand because they're only going by what they learned in school and also access issues. So, for instance, they may not have technology or they may not be able to operate technology. And if they don't buy the kinds of newspapers that tend to run stories about scientific research, they're just not getting exposed to it. You know, when I think of them, you know, my family, a lot of them, they wouldn't sit down and just watch a documentary or they've got young children and the children control what's on TV all the time. So I think they're just not seeing it a lot of the time. So it's they're not seeing it and they're not understanding the significance because their only exposure is when they took, you know, first year chemistry or whatever and in high school and they thought it was boring or, you know, I think it's just they just don't they don't know how it translates into the real world. I think that's what I'm trying to say.

**Facilitator:** Fantastic. Thank you. Participant 1, is there anybody else? Yeah, go on, Participant 3.

**Participant 3:** So, so I really think that schools should be the main point of really getting it started. And really and truly, to me, it is going to talk about science. Let's talk about let's go and enjoy the environment, the birds, the fish, the whatever. So to me, it is get rid of the word science because science seems to be up there where you are supposed to be very intelligent and think about science. There is really and truly a lot of things, even in the kitchen. If you if you mix this and that, it is science, really, if you think about it. But we are hoping that that they're doing a scientific experiment. So I wonder whether we should be thinking about how do we engage people who are trying to engage the citizens? But the citizens think that if you talk about science, you need big brains for that and a whole lot of us have only small brains. So when you are my age?

**Facilitator:** Thank Participant 3. And Participant 2.

**Participant 2:** For me, obviously, it's probably been said that even I'm very interested in science. It's time, and there's always other things that seem to be more urgent need dealing with and the luxury of reading an article or something like that. So thanks.

**Speaker1:** Thank you, Participant 2.

**Participant 6:** One way that I think the public are very successfully being involved in science of these. Use your computer downtime projects, so I'm afraid I don't do it. But my husband does. And he's been involved in city searching for signals from the stars and more recently on the protein folding project. And basically, instead of a screensaver, he just got all these different ways of folding protein coming up on his screen when he wasn't using the computer. And that's really quite exciting for someone who's never been involved in big projects to do.

**Facilitator:** Amazing. Thank you, Participant 6. Uh, I think we've reached, uh, halfway through point, so I would like to ask you whether you would like to to have a break now, say, five, 10, 15 minutes or would you like to carry on? I think it would take one more hour to finish our questions. What would you prefer?

**Facilitator:** Five minutes. Okay, so let's reconvene in five minutes, which is 11:11. Thank you.

**Facilitator:** Hello again.

**Participant 4:** Facilitator, can I just ask you a question? When we're talking about citizens in research? Are we talking about research? In in the general terms, yes. Any research, any trial research, any. Just research.

**Facilitator:** Yes. Yes. Yeah. Any research that you can connect with and you have personal experience of, if it's medical research, it's fine. If it goes beyond medical research and you can draw on examples from something else, that would also be really helpful.

**Participant 4:** Because I was thinking we could, you know, we could go as far as talking about space research.

**Facilitator:** Absolutely. Yeah. If it's something that is of interest to you and your watch programs on TV, for example, or read scientific articles, then it's fantastic.

**Participant 1:** Is looking very bright where all of you are, and it's so dark here, I've had to put some lights on. It's really awful weather up here in Scotland.

**Participant 4:** I won't tell you. It will only upset you. It's like I have had to close the curtains because the Sun is just

**Participant 2:** It's it's more more cloudy than sunny in London is a bit bright, but it's great. Mostly, we had

**Participant 1:** A lot of sun yesterday, but it's back to the usual today.

**Participant 2:** You've got that big storm coming, haven't you? Hopefully this remind you of even what you know about the weather last night, which seemed to be saying Scotland was like we were OK.

**Participant 1:** Yeah, 90 mile an hour winds, I believe. Come in.

**Participant 1:** I hope we don't get affected. I hope.

**Participant 1:** There's been a danger to life warning, so I'm not leaving the house. Yeah.

**Facilitator:** It's also very nice and sunny in Oxford, but we're expecting a storm up to 69 miles an hour, so.

**Participant 2:** And what's happening with the Russians, and that's another story altogether. The news this morning, so we won't go into that topic, but

**Facilitator:** Okay, shall we restart? We have three more questions, but I believe they would generate less discussion than the two questions, so we may well be able to finish in under an hour. So the next question is, are you aware of any initiatives that help to engage citizens in science, for example, media campaigns, public talks, open day science festivals and so on? Go on. Oh, sorry.

**Participant 5:** Yeah, mine's only through work. The only reason I know about it is to work, so I previously worked for a local shopping centre and as part of that we worked with a gentleman who ran a event called IF Science Fair Oxford. And he came, I think he did, where he did Westgate. Two years running. The first year was more of a trial, and they had all kinds of really cool science, scientific displays. I mean, I don't know what the technical terms are, any of them are, but they looked brilliant. They were light globes that children could touch. And, you know, things like that that were really sort of visual and interesting. And it was it went off really well, and we did it following year and again had really good footfall off the back of it. But I think with something like that, it needs to be somewhere really central where people are kind of walking through. I don't know necessarily if it would have had that uptake if it was an event that was an isolated place and people had to go to it directly. But yeah, that's probably the biggest thing that I've I've seen that appeals to people who aren't necessarily interested or who might not have otherwise be involved in sort of getting involved in science events.

**Participant 5:** Yeah. Fantastic. Thank you. Participant 2 please.

**Participant 2:** Um, because that sounds really interesting, isn't it? The moment, just the science day coming up at the UCL about various things, but of course, that's more preaching to the converted, and it's going to be people who you know, already and through other PPI work, I do they have various conferences and things to bring people together about research. But again, it's not so much going to the general public. So the examples that we just mentioned, it sounds very, very helpful.

**Facilitator:** Oh, that's very interesting, so you are saying that the event at UCL is about preaching to the converted because people who are already interested in science would go to those events, and it kind of compares nicely to what Kareena said about a science festival in a shopping centre where everybody could go. Yeah. Fantastic, very helpful, and Participant 1.

**Participant 1:** The only ones that I could think of were the Science Museum, there's a science museum in Glasgow, and I think there's a museum of Science and industry in Manchester as well. And then in Edinburgh, they have a science festival. I've not been well, obviously because of the pandemic and have moved, but they used to have just random things like big boards and things, and it was just like a snippet or something on it. Like, I don't know, crystals or just something. It's just a quick way when you're when you're walking by like, Oh, what's this? And can access it that way? And I was also thinking, Professor Brian Cox takes a show on tour. I've actually been to one of them and I'm going to his next one. But like Participant 2 said, that's kind of, you know, people who are already interested and that sort of thing getting involved in that. But I suppose the people that are interested maybe take their partner along who maybe has no interest whatsoever, but maybe it gets them interested too. So maybe there is some way of reaching a certain amount of people that wouldn't normally attend those kind of events.

**Facilitator:** Thank you, Participant 1. Participant 2, you wanted to add something,or is it a legacy hand?

**Participant 2:** Well, not it doesn't really have anything, but when the Science Museum in Glasgow was mentioned, it reminded me that I was always taken to the Science Museum when I was a child and that fostered my interest. So it shows these things, whether children these days, perhaps they see it or on social media, I don't know, but certainly in my case, it did get me interested. And of course, there is lots. I think it's a few years since I went there, a couple of years, but there's still lots there that's very interested in accessible. I'd imagine children would like it.

**Facilitator:** Thank you, Participant 2. Participant 3, you have your hand raised.

**Participant 3:** Yeah, thank you so much. So there are three things. One was I went to guys in Thomas's where they had a really good exhibition talking about how plastic is impacting the oceans. So, you know, that was really interesting. Really enjoyed that. Then the other one was we we've gotten Older People's Forum. So as part of the Forum, we went into the Natural History Museum to help them reinvent things for older people. So then as part of this, they took us around the exhibition to to tell us what everything was all about, and they asked us to go around and find things and change it a little bit. The other one was locally, there is a scientist in our community, so she goes into little groups. The last one she did was out in the open, making bombs, making oil from natural things like the reeds. So how do you how do you bring that and make it into something that is usable? So yeah, there is quite a lot going on in the communities. I think it is. How do you find it out? Is the big issue, I think.

**Facilitator:** Thank you, Participant 3. Participant 6.

**Participant 6:** It must make a world of difference where you live. I mean, I'm in Oxford and we've got two science museums. The used to be a centre for children to go to. Funded by the Oxford Trust, the Oxford instrument people. And there are lectures all over the place. Wonderful outreach from various labs and things. But if, like my brother in law, you live in the middle of the country, I don't think his children got anything like that because it's just not there. So it's it's the luck of the draw, really, whether anything is is available to you.

**Facilitator:** Yeah, very important point, Participant 6. Does anybody else want to to add something to this question?

**Participant 1:** This is maybe going off on a tangent again, but I was just wondering if there's certain TV shows that spark an interest in science and people so they may be watch. I don't know something to do with forensic science, how to solve a murder, using forensic science or something like that that maybe makes people want to find out more about science and how that all works. So I don't know. Maybe that's a way of reaching that. We get some people involved.

**Facilitator:** Yeah. Thank you. Participant 6, you have your hand raised again

**Participant 6:** Just to elaborate on what Participant 1 says, which I think is a very good point. There are one or two children's television programs. There used to be a cartoon set inside a computer, for instance. And I think that that sort of thing could really spark an interest in children.

**Facilitator:** Wonderful, and I mean, is it a legacy hand or would you like to add something?

**Participant 3:** Yeah, just a little point what Participant 6 was saying. So you don't need to have big science museums and things. It is trying to find somebody locally who has got an interest in science and who has got the opportunity and any place to go to because sometimes all our churches and places of worship where we used to go and meet him or go on. So it is trying to find somewhere that we can bring people together and talk about things. I was just going to put in the checkbooks. You've got somebody who's doing this type thing you never. We're in an area where the idea was go, I'm in London. The little area I live is very, very progressive and lots of lots of famous people live here, including myself, I think. So it is. It is, and they are very keen to promote what they know to the community. So with the recycling is trying to get all the shops to say come and help us. We want your help and we will help you by coming and going shopping with you. So it's a two way process, really. How do we engage the community to give back to the community? So I think we need to think a little bit different now, especially with Covid on our doorstep as well.

**Facilitator:** Yeah, thank you. I mean. And can I ask you a related question about your experience or your thoughts on open access? So nowadays, maybe many research funders, they require researchers to publish results of their research in open access journals that everyone can access for free. But many research publications still remain behind the paywall so that no, not not everybody could access them. So can I just ask you about your thoughts and experiences, whether you can actually access open access publications online and read them or the scientific jargon creates a barrier, and it's not helpful in any ways who would like to start on open access?

**Participant 1:** If I've come up against that paywall many, many times and I find it really, really frustrating. So in principle, I think the idea of having open access journals is really good. However, like you say, they can be full of jargon, especially if it's something medical. There's a lot of chemistry and things in there. So I think the sometimes, though, that the summary can be enough to just, you know, give you what you need to, I don't know, maybe pursue some other avenue to find out more details, to have someone explain it to you in layman's terms. But certainly when you're doing research, you might be doing research into your own condition. You find an article you maybe want to speak to the GP. So you think I'll go, I'll go and read this article. Oh, no, you get the first few lines and it's that you need to be a member to to read further. So I do personally find that really frustrating. I think open access is a good thing. Yeah.

**Facilitator:** Thank you. Participant 1. Participant 6.

**Participant 6:** I agree. I read quite a lot of open access articles on issues that interest me... And also because I have an autistic child, I get from Autism Oxford. I guess a daily feed of synopses, abstracts of journals. The guy who does it, I don't know where he gets them, but they're obviously open access and they at least give you a little abstract. What I have found is the layman's version of the abstract, which some people do very often is more difficult to understand than the scientific one. There's a training gap there, but. So some of the articles are Open Access as well, and yes, they can be very interesting and you can learn to read them.

**Facilitator:** Thank you, Participant 6. Participant 2.

**Participant 2:** Yes, it's I'm very pleased these articles are available for me personally, I haven't ever got round to well, certainly since I was studying years ago, really got around to looking for them and probably would because of time. We just rely on spotting something a synopsis of something in a newspaper or something, but it does remind me of a tangent again, but of another another P. The work I do when they're talking about how the results of clinical trials can be open to interpretation, and they may publish the degree, which is certain how successful something, isn't it? But they don't mention, for example, whether they're talking things like adherence. You know, whether whether the patient took the treatment in the trial or not, it can make a big difference to to the to the outcomes, things like that. And if there's just a general article in a newspaper, it probably wouldn't cover that and it could give misleading results. So obviously, reading the actual article properly in the way you're saying would be better. But I suppose most of the public. Well, clearly not, because you two said you do read them, but a lot of the public wouldn't. The question is perhaps. Thank you.

**Facilitator:** Yeah. Thank you, Participant 2. Participant 3. We can't hear you.

**Participant 3:** Sorry, Open Access is excellent, but how many people know about it, because just like Participant 1 was saying, you read two lines and it says that you need a subscription. The second thing is it's very, very few articles, mind you, I haven't seen any that have been translated into different languages. So how do people whose language is not English, whose first language is not English, can get access to them? So we are talking about various that is the biggest barrier. Also, people who have got other inclusion [needs]. So, people with learning disabilities, for example, people who are blind, how do they access all these things, are they accessible?

**Participant 3:** Yeah. Very good point, Participant 3, thank you. Participant 6, you have your hand raised again.

**Participant 6:** Oh, yeah. Oh. Get over what I think isn't terribly well. Sized is that nowadays county libraries often give you access to collections of journals, and certainly as a graduate of my university, I, the alumnae are given. Access to various sources of information as well, and I think the whole is opening up vastly more than it used to be.

**Facilitator:** Thank you, Participant 4.

**Participant 4:** I just feel this this question is is huge to sort of give meaningful, specific examples. All I can throw in is if you open every if you open access to every report, you could be inhibiting. Some reports saying everything that they should. Are they? I mean, most reports, I presume you are thinking of where they are peer reviewed, are you? Are you thinking of of sort of having every report, whether it's peer reviewed or not open, to be read by everyone in the world? I would think Facebook will have a field day if you know there is no. I find this one quite difficult to sort of help in any way because I'm just thinking of the sort of. Um, problems that could occur if everything is open without any any anyone sort of looking at it before it gets into the open access. I don't know, it may not be making any sense.

**Facilitator:** I guess just to clarify where open access is for academic journals that the peer reviewed.

**Participant 4:** Hmm. So you're talking about access, where the only way and the only reason to to see it would be if you paid a fee.

**Facilitator:** Yes, so there are journals...

**Participant 4:** But there must be reasons why these companies and the companies for money are holding on. And whenever I wanted to look at her, you know, something like medical scientific report, I don't think I found a problem if there was a report where it said, you know, you need to pay. I was able to find it in in another form in another way through another means. So I'm not sure how how this works. Open access? I'm not sure.

**Facilitator:** Yeah, so the idea is that big publishing companies they sell subscriptions to to their journals and then libraries and universities would need to buy this subscription to enable people who use this library. So who are members of the university to to access journals pretty much like any newspaper. But there are journals that publish results in open access, so everyone could just Google the title of the article and read it, and it doesn't require a subscription. But the catch is that the authors would need to pay journal a a large fee in order to to publish this article for free, because publishing for free diminishes income of big publishing companies from subscription.

**Participant 4:** Can you trust these sub scripted reports? As you will trust one that you could read openly. You think?

**Participant 4:** Yes, in many cases, biggest journals, they are subscription based journals, meaning that they have the most the strongest type of peer review. Participant 1, you have your hand raised.

**Participant 1:** I, yeah, I just wanted to make a comment. Somebody mentioned earlier about the the kind of summary to these journals. I am quite often being quite difficult to read. And I think that's where public involvement plays a really good part because often you're asked as part of the group, they ask for a couple of volunteers to read over what they've written and make sure it reads well in plain English so that it is more accessible in fact involved in a project like that myself. So maybe I know it's probably not everyone's doing that, but maybe that will slowly filter through so that more and more people do that and make these reports more accessible to everybody.

**Facilitator:** All right. Thank you, Participant 1. Participant 2.

**Participant 2:** I'm not sure how well publicized these open access options are because I don't think I have heard the term and I'm not sure I really I haven't tried to research a major research paper recently, possibly able to come across it, but I wasn't really aware that was an option. If I was trying to research a specific condition that had a particular concern about it would be really helpful to have that opportunity. So do you think is it something one comes across naturally, if you search for something on Google or something and it brings up these options, or would you have to know about it beforehand? I think.

**Facilitator:** Yes, I think you would know if you have access, then it's open access, but if you don't have access, if there is a paywall, then obviously journalists want to sell your subscription or want you to pay a one off fee for access in this article.

**Participant 2:** I mean, just just in terms of the concept of open access at all, would you come across that naturally by doing a basic search for a conditional or

**Facilitator:** No, it's only in published articles to help to know about it beforehand which ones are open access? But on the internet, I don't think that there are special databases of open access articles only. Just the way you access

**Participant 2:** Them, I mean, not databases of open access, but just a point as to the fact that there is that opportunity to find these open. I don't know how easy that would be. Maybe that's a barrier, then, if it's not so obvious that that's an option for people?

**Facilitator:** Yeah, that's a good point, actually. Thank you, Participant 2. Participant 5.

**Participant 5:** I'm not sure if this has all been raised, so I had some technical issues there, so I couldn't hear you for about five minutes, but I was just thinking more about that from a point of view of barriers. Surely the people you want to interact with science are the people who are less likely to in any other situation. And I suppose things like with open access, people who are from underrepresented groups or marginalized people of, you know, members of society may not have the means or the knowledge to even think about open access. You know, they might not even have internet in some cases, you know, so I think whilst it's brilliant, I just think it's something that probably needs to be made made more of publicized more. But also, there needs to be other ways of communicating some of that information and also making it more plain English. Because everything I've seen has been very academic, and that's great for people who are of a certain level of education. But you know, if you might still be somebody who would benefit from doing more with science but just don't have that level of comprehension, and there isn't anything that I can think of that's readily available in a plain English sort of format. So that would be definitely something to think about.

**Participant 4:** Absolutely. I agree with that very much.

**Facilitator:** Great point. I thank you. And Participant 6.

**Participant 6:** Am I right in thinking that at least some of the American funding bodies won't fund you unless you publish open access material? Yes. I think that's the case, yeah. So it's obviously going to grow and presumably people will learn of its availability. And there are some very good open access journals. I use something called PLOS One... I usually find them accessible, but if you're not into it, that sort of thing, at least for practical things, pretty well everything that you can do is available on YouTube. You know, you don't have to pay someone the Earth to change your phone battery when it dies because there's an available source on eBay and lots of different films on YouTube on how to do it. So people who aren't particularly academic, I think at least for applied science, can learn a lot from YouTube.

**Facilitator:** Fantastic. Thank you, Participant 6. And carrying that, you have your hand raised, was it a legacy hand? Ok. Moving on, our next question is about an initiative to recruit new talent into sciences, especially from women and ethnic minorities and people who have been traditionally underrepresented in science. Are you aware of any initiatives to to recruit new talent into science, to recruit new people, to participate in research and to recruit, to recruit new public contributors? And the rationale here is that funding bodies, especially those funded by taxpayers, they're supposed to fund science for people who. Represent the tax base, for example, if science is predominantly male based, then it's not fair on taxpayers who are both women and men to to to fund only men or, for example, people from different ethnic groups contribute to to the budget of a government research organization. But they are. They end up underrepresented among researchers among patients who would take part in in trials or public contributors. So my question to you, are you aware of any such initiatives to to help engage new talent into sciences? Ok, Participant 4.

**Participant 4:** The obvious one to think of, which is in Buckinghamshire, all the times going on is is the emphasis in schools to promote science, learning to to to show young people at the age of 14 15 when they're thinking of careers that, you know, science is not just for Oxford and Cambridge graduates, it's for everybody. So yes, I know of that specific where a lot of money being spent at the moment, taxpayers money, obviously, to promote this kind of thing across schools, which means that, you know, ethnic minorities are being, are there girls, boys? So it's open to all.

**Facilitator:** All right. Thank you, Participant 4. Participant 6.

**Participant 6:** Seem to hear about these things the whole time, actually. You're always hearing on the radio or in newspapers about outreach projects. I know, for instance, that the whatever the professional body of engineers can't remember what they're called have for years, how to get more women into engineering. And now something like 20 30 percent of undergraduates for engineering a female. And the other thing is, I think most universities have outreach projects where they send undergraduates or graduates into schools to talk. And again, I think that has a bias on underrepresented give up underrepresented groups. Having someone that represents those groups go out to do it.

**Facilitator:** Thank you, Participant 6. Go on, Participant 3.

**Participant 3:** Let me let me unmute first, so. So for me, it is looking at international work, you know, just like I said, we've done a lot of things on Zoom and we get a lot of scientists and medical researchers coming on Zoom. And so we had a mixed group. We have two or three 500 people on Zoom where we listen to people, you know, who have done science. We're doing research, we're doing all sorts of things. How do you engage with young people, older people, getting them into little groups as well and talking about science? So to me, it is. How do you do it on an international level? Because there are a lot of minority groups who don't trust there is a lack of trust in specific research done in, for example, America and England. But can we do research on an international level? How do we connect with each other? I think that might be the way to go because because of trust, I think.

**Facilitator:** Thank you. That's a great point about trust. Anybody else would like to contribute. Oh, you want to watch?

**Participant 3:** Shall I come back again a little bit? I think also trying to show people who have got sensory impairments, for example, is making sure that the the organizations that that look after people with sensory disabilities or people with learning disabilities because they will be excellent as well, why not get everybody involved? But it needs to be very accessible and at the moment, I think it is. We do a lot of talk, but there is very little action. So there is I mean, if I look at I do a lot of TV, I work, but there will be only 30 or 40 of us. There will be five or six of us that are from minority groups. The rest will be from the major or major groups in England. So I think I think we need to think about how do we engage people? I don't know whether it might have other ideas, but to me, there is something is missing here, but I'm not quite sure what, because everybody will ask, how do we get people from minority groups involved? And a lot of them don't want to get involved because again, we're just I mean, when I go on to things like this, what am I as I am asked what condition I have got, what my date of birth is, what my postcode is. And some of us just do not want to give that information to people. And I get really. For me, it is when somebody says, what's your postcode? I said, You can go and get lost. If you tell me, what is your date of birth, I say, you tell me your date of birth and I'll tell you mine. If they didn't tell me, what are your long term conditions? I say, you tell me your conditions and I'll tell you mine. There was one group that I went to that was talking about representation, community representation. So they asked me, What clinics do I attend and what was my first job? So I said, What's my past? You've got to do with you guys? And the answer was just in case you bring disrepute to our organization. So I said, here's my question about prostitution. Does it fit in with what you are doing? And my long term conditions was I said, I have got HIV and I've got AIDS and I go to incontinence clinics. How does that fit in with you, with what you are trying to to engage with? So can you see there are lots of reasons why some somebody like me, I tell people, you know, just just go and get lost. I'm going to tell you anything about myself, by the way. By the way, what I am saying is not that is not connected to me, but, you know, just to bring a point across. They do not ask stupid questions because you will get stupid answers right away. Then I said, Can you send me to counselling because you have raised issues that I need counselling with? So in my lecture over,

**Participant 4:** But that's a good point. That's a very good point, because a lot of ethnic groups, religious group, people from certain backgrounds do not, do not join, do not get involved in these things because they know those are the sort of silly, stupid questions they are going to be asked. And it's not in their culture or in their beliefs that, you know, they should be revealing these things. So we are automatically cutting out swathes of people just by simple, simple things we could do to make it easier.

**Facilitator:** Very well, said, Participant 4, I thank you and and again, I mean, I thank you for your great contribution. It's up to the point and you made us all smile, so you're keeping us in good spirits to carry on. Thank you, Participant 2, you have your hand raised.

**Participant 2:** It's not it doesn't quite relate to the question, but just reminded from what we've just been told, this is my own personal experience in terms of being. We signed up to be with Moorfields for my partner to be involved with further research if they should want it, and the form asks what conditions he has and so on. And that is under Moorfields. I had an email saying, Please give me, have your date of birth so that we can access your medical records so we can choose trials that would fit you. And I thought that was a bit cheeky because I have already said in the form what condition he's got, and I thought it should be the other way around if they have something that relates to one of those conditions at that point and they'd get in touch with us and say, This is what we've got. Would you like for this particular trial because we access your medical records? Not like a blanket thing. You can just see very, very casually worded that I should email all these details. So that's just from my experience is I don't know whether that would relate to. You know, anyway, thanks. Yeah.

**Facilitator:** Thank you, Participant 2. Participant 5, do you have any opinions or experiences?

**Participant 5:** I mean, my general opinion is that, yes, there are a lot of that's a huge barrier in terms of providing personal information or identifiable information as well. So I think people, the concern is that people that people usually have is that people be able to identify them years down the line. And maybe they don't. They might want to share their experiences, but they might not want other people to know about it. So the identifiable is a little bit more. I think there's a little bit more reluctance when it's really specific to that individual. And often there's a lot of research that I've done where often I don't think they need that information. They don't need my postcode. It doesn't make a difference. You know, if I'm somebody of a certain age or from a certain background, does it really matter whether I live in, you know, the city center or if I live in Timbuktu? It doesn't really matter, does it? So I think that that's the thing. Sometimes it's it's the amount of information else is just over way above and beyond what is needed, and that is what turns people off. And I've seen a lot of people who've actually, you know, gotten over the obstacles to actually get involved in research. They've done the first sort of iteration of it and they're put off at that stage because the amount of information requested is just it's just overwhelming. And I know that a lot of research is in more than one stage, you know, sometimes they'll follow up with you six months down the line and they won't be able to get those participants back because they're just completely put off with the amount of information they've had to share in the first in the first instance. So yeah, it was just to echo what everybody else has said, really. It's just I think that should be the, you know, personal information should probably be kept at a minimum, and it's more about people's lived experiences than anything else.

**Facilitator:** All right, thank you, Participant 5. This brings us nicely to the last question.

**Participant 2:** And I just say something quickly purple, you know, course that maybe it's sometimes a case that doesn't necessarily mean that people would be okay with it, but at least if they could explain more clearly why they're asking for, let's say, demographic information in case there are times when people would be a bit more happy to help if they knew why they wanted it. But on a negative point of view, and sometimes you hear that this information is kept for decades afterwards because they have to for certain reasons, and that isn't always highlighted. And when that comes out, it can make one lose trust a bit. Thank you.

**Facilitator:** Thank you. And. The very last question is whether you are aware of any policies that promote citizens engagement in science and if so, what are these policies and this could be government policies or European policies or policies at the level of your city council, for example. Go and ask me now.

**Participant 3:** So I have seen lots of policies that are trying to engage citizens in all sorts of things. Now the the issue about whether what is your ethnicity, what religion you are. So all that is collected and I personally am quite happy to give that. But I don't think people realize that sometimes it's not just the ethnicity, it's the heritage that has got a lineage of conditions, just like Participant 1 is talking about prostate cancer and in black people. So it is it. Is it connected with the heritage? Is it connected with the ethnicity? Is it connected with the country you are born in? So I can cover all sorts of things. My daughter was English since she was about 20, and now she is African. So how do you sort all that out? People are asking all these questions to me. There needs to be a little bit more about very specific things you need for specific conditions. I don't know what others think about it.

**Facilitator:** Yeah, thank you. Participant 4.

**Participant 4:** The obvious one is the Health and Care Bills and Acts, especially since 2012, when patient participation was one of the key areas that was highlighted. So since then, there has been a lot more patient participation in decisions and plans made in the end by the NHS. So that's one example, but every time the Equalities Act, for instance, that that is citizen participation, if ever there was one. So yes, there are a lot of we we may not identify them immediately. But actually, if you sit and think about it, there are hundreds of examples of where you know this. This has has has happened and is happening. That's it. Yeah.

**Facilitator:** Thank you, Participant 4. Anybody else? Are you are you aware of any policies to promote citizens engagement in science? No, no. Well, and always also an answer. So it's very helpful. Thank you and. I think we're all done now with the core question I had for our discussion today, and we finished slightly earlier than expected, which is really good, and we covered all the questions. So now I will transcribe the meeting and analyze the results. And those of you who indicated interest in being invited to the next focus group, I will get in touch with you in September or October and ask again if you would be interested in participating in another focus group and please do complete your payment form and send it to me so that I could process it. And do you have any other questions?

**Participant 4:** I have. Do you have other focus groups for men only for, you know, teenagers only? What how, how is it? How is this all done?

**Facilitator:** Yes. So I personally don't. But my colleagues in Europe, they do, because we divide it a different focus groups between different centers or countries and colleagues in other countries do have focus groups with teenagers, as you say, and also with men.

**Participant 3:** I wonder what bias there will be, because if you if you're just doing the UK women, I wonder what a European bias will be in all this.

**Facilitator:** Yeah, but we should be able to tell this at the end of the project, they are absolutely right. We won't be because we are doing qualitative project. There is bias already. It's impossible to not to have bias in any qualitative research. So we'll just need to take it into account rather than completely get rid of it.

**Participant 3:** And you're not taking on any Americans or Australians.

**Facilitator:** No, no, no, we don't have Americans or Australians, we have only U.K., Spain, Portugal and Italy.

**Participant 3:** Oh, that's interesting. Ok.

**Participant 4:** There could be Italian Australians.

**Participant 3:** Oh yeah. Ready to pay you too. It's interesting. Yeah, that is interesting. One of the one of the things I was going to say is people who go on deep eyes, you know, the patient participation groups. I think I think for my myself, it's only in the last few months I realized that we give them a lot of our medical information to say what long term conditions we have got. We have got cancer. We got this, we got and we don't know what the group itself is, what conditions they have. And to me, why should we tell the world what our condition is when we don't know what conditions they have? So already there is disparity here that they can know that we have got a condition when a whole load of people will have similar conditions, but they don't tell us about it. So for me, I have now started to tell them, Please tell me what your conditions are so that I am quality. There is quality there. Otherwise, I am treated like you are the patient and we are the people, the medics. So I was saying from now on, ain't going to tell them what my condition is. I said, You are a patient, I am a patient and I'll give you what I can give you when I go on all these groups. I don't know what the other things, but from now on, I am going to tell them what my condition is. Nothing to do with them in a way, but what business is that of this? Yes, because we had a patient, we don't have to tell them that we are suffering from this dental other unless there is very specific reason for doing that. Because I know there was somebody who was who had cancer and they wouldn't know she didn't have cancer but needed a liver transplant and nobody would see him because he did not have cancer. So I think a lot of disparities with which we we as patients need to think about how we treat other patients. Just because you didn't have cancer, why didn't you get treatment? Why was nobody able to see you? Sorry about that, my lecture.

**Facilitator:**  That was actually very useful to to understand your point about confidentiality. Yeah, thank you.

**Participant 3:** Yeah, because it's a people, you send the phone in the same people who are going to interview and they are the same people who sit around the boats knowing exactly what your conditions are. I think it's appalling and I hadn't thought about it until recently that why are we giving them our personal information just because they want us to sit on their boat? So for me, I am a rebel, you see? So when I find something, I become a rebel. So there you go.

**Facilitator:** Yeah.

**Participant 3:** Sorry about.

**Facilitator:** Thank you, everyone. There are no other questions I would like just to thank you again for your contributions, and they were actually exactly as I was hoping to be very broad and there was a lot of variation in your responses and you provided a wealth of information and insights. So thank you once again, and please don't forget to send me your payment form so that they could process them quickly. Thank you again, everyone.

**Participant 4:** Thank you very much, everyone.

**Facilitator:** Thanks, everyone. Bye bye.

## Experimental Groups

Experimental groups in gender include three focus groups: 1 group with women (including Young women), 1 group with the LGBTI+ community and 1 group with women (including vulnerable women).

### Women (including young women)

|  |  |
| --- | --- |
| 12th October 2021 and 20th October 2021 | Participants:   * Ricercatrice * Participants: P, T, L, E, I |
| 10h and 13.30h |
| Online (Webex) |

Introduzione del progetto da parte delle due ricercatrici.

Ricercatrice: Ci sono esempi sui social media su come i cittadini possono trarre vantaggio dalla ricerca per promuovere campagne sociali o anche forme di attivismo su problemi sociali. Per esempio sulla questione del bullismo. Sono state fatte tante ricerche sul tema e anche grazie a queste ricerche sono state fatte queste campagne. Che ne pensate di questo?

P: quando tu dici “campagna di sensibilizzazione”, il tipo di reazione che potremmo avere noi? Dici a livello individuale.

Ricercatrice: Sì, la risposta riguarda sempre la vostra vita quotidiana. Vi è capitato di leggere e diffondere…

T: A me è capitato. Una volta qui a Pisa mi è capitato di pubblicare una storia su Instagram sul fatto che due ragazze fossero state picchiate durante la notte. Questo mi aveva colpito molto, essendo Pisa una città piccola, il posto in cui era capitato era un posto in cui io passo sempre. Avevo condiviso la storia e molti pensavano fosse successo a me. In realtà, no, era solo per mostrare che siamo arrivati a dei livelli di violenza anche in una città così piccola che prima non c’erano.

L: volevo chiedere se si facesse riferimento a ricerca scientifica nel senso di papers, quindi ad articoli di riviste… o se si parla di articoli di quotidiani.

Ricercatrice: possiamo parlare anche di quotidiani perché magari riportano qualche dato… magari Tsyla ha condiviso la storia sulla violenza e magari ha fatto riferimento a un articolo dove veniva riportata una % riferita al grado di violenza della città.

L: La maggior parte della mia attività sui social, su Facebook, è questo: io non condivido informazioni sulla mia vita personale. Se leggo articoli interessanti, li ri-condivido, senza commentarli. Trovo infatti che (facebook) sia una piattaforma sterile di discussione… che poi discutere per commenti la trovo un’idiozia… però se trovo una cosa interessante che possa stimolare la conversazione tra le persone, amici, famiglia… fare il collettore penso…. È l’unica cosa interessante. Avevo un gruppo di ragazze… con cui diffondevamo la cultura di genere… prima ci chiamavamo “Scorci di genere”… durante le università facevamo riunioni di collettivo nelle aule libere e poi, causa Covid, ci siamo spostate sui social, quindi, sì, usiamo paper, usiamo articoli e li diffondiamo sulla cultura di genere, la violenza di genere. Quindi, lo faccio.

Ricercatrice: E, forse volevi aggiungere qualcosa? Ti si è acceso lo schermo

E: E’ che non sono riuscita a sentire bene.

Ricercatrice: Magari ti riassumo cosa ha detto L. lei usa nella vita quotidiana articoli per fare sensibilizzazione, quindi la ricerca scientifica ha un impatto su di lei. Tu hai la stessa esperienza?

E: Beh, del bullismo ho sentito l’esistenza durante il corso di unitre (pausa)… ha parlato la mia docente, una psicologa… so che ci sono queste difficoltà… io faccio parte della Casa delle donne contro la violenza più che altro… ne sento, però… non so cosa dire!

Ricercatrice: questi aspetti di cui hai trattato nel corso li hai diffusi alla casa delle donne…

E: non abbiamo avuto il materiale… io so che c’è questo fenomeno… il materiale non c’era. So che ci sono delle ricerche, ma non ho avuto il materiale.

L: vorrei fare una puntualizzazione: sui social network diffondo qualsiasi tipo di materiale scientifico, poi la questione di genere è a parte. Diffondo tutto quello che ritengo da fonte attendibile.

P: L’unica cosa che aggiungo a proposito di bullismo è che sentendo una serie di mamme… il discorso del bullismo è di certo una preoccupazione. Sono usciti vari articoli e mi sono ritrovata a parlarne a confrontarmi. Poi, come diceva Emilia, alla Casa delle donne ci siamo ritrovate a fare parecchi incontri, anche con quelle di Nonunadimeno. Si sono letti articoli, si fanno ricerche, anche sulla violenza di genere. Ovviamente alla casa delle donne tutto quello che è genere viene trattato, ci si confronta.

Ricercatrice: usualmente attingete a queste ricerche…

P: sì, attingiamo alle ricerche con tutti gli annessi e connessi. Non è detto che si possano prendere così come vengono riportati. Bisogna fare una bella cernita. Ci sono delle perplessità molte volte.

Ricercatrice: relative alla fonte?

P: Beh, dipende…

(pausa perché c’è un problema tecnico)

I: La mia esperienza è simile a quella di Lavinia. Due anni fa mi sono avvicinata al collettivo che c’è a Parma sull’intersezionalità. Poi è diventata La casa delle donne. Mi sono ritrovata a gestire la casa delle donne, quindi leggere articoli e fare una scrematura per scegliere cosa divulgare. L’ho vissuto come un compito con una certa responsabilità. Sono entrata nell’ottica che… avendo la nostra pagina iniziato ad avere seguito… insomma… proponevamo degli articoli che poi la gente avrebbe letto… è un lavoro grosso… è diventato un compito pesante… c’erano comunque persone che mi hanno affiancata.

Ricercatrice: P, volevi finire il discorso sulla cernita delle fonti?

P: Bisogna saper leggere e per certi versi avere una capacità. Questo si può fare se si fa un’attività corale. Noi abbiamo la pagina Istagram… il riferire questioni di violenza e anche di genere e femminismo… beh, si può rischiare di utilizzarlo in modo sbagliato. Come diceva, I, il lavoro dei social è importante e bisogna farlo con grandissima attenzione perché legge tanta gente, bisogna stare attenti, sicuri di quello che si scrive, bisogna stare attenti alle mode… perché ormai oggi, le donne, la violenza etc. ci sono le mode… boh, attenzione! Certamente è divulgare, riportare le esperienze.

Ricercatrice: Ecco, visto che citate tanti articoli… vi è mai capitato che qualcuno intervenisse e non citasse la fonte? Li avete sollecitati a fondare il loro argomento?

P: Io rispondo sempre… per quanto riguarda i no-vax. Mi passano articoli… senza dichiarare la fonte o chi sono. Per cui intervengo… qual è la fonte? Non tanto sulla violenza di genere, ma sul covid sì.

Non perché ne sappia qualcosa, sono ignorante… sono cose sulle quali bisogna fare attenzione.

Ricercatrice: Secondo voi, in questo momento siamo più disponibili ad accogliere delle notizie, anche senza verificarle? Avete questa impressione nella vostra vita associativa? In generale… avete l’impressione che si faccia meno impressione alle fonti?

I: io ho questa sensazione. Confermo. Io non mi sento scettica rispetto a questo approccio. Ho la sensazione che in questo periodo, se non ad inizio pandemia, ma appena dopo… oltre al discorso scientifico, che per me è molto pratico… si stia delineando un percorso che si basa anche sul sentire del singolo. Ho la sensazione che, oltre al discorso scientifico, si stia delineando un altro tipo di discorso che si basa sul sentire del singolo. Ed è il motivo per cui io non biasimo chi non ha la necessità di tornare alla fonte, perché… io parlo per me… spesso mi sono ritrovata ad ascoltare l’opinione di persone che non appartengono alla maggioranza, mettiamola così, e non sentivo il bisogno di risalire all’origine. Perché… faccio molta fatica a spiegare… è una sensazione mia molto profonda. A fianco del discorso scientifico della fonte si stia delineando questa cosa, che secondo me è molto grossa e non è usuale… perché non siamo abituati… adesso noi siamo in cerchio, siamo in sette… adesso mi siedo, mi metto in una posizione di ascolto e ascolto quello che senti tu, se hai voglia di dirmelo.

Ricercatrice: anche nella tua esperienza individuale lasci spazio a un sentire che non ha bisogno di attingere a qualcosa di scientifico, razionale.

T: io volevo dire… nel mio quotidiano non sanno proprio riconoscere le fonti giuste da quelle false. È normale che uno si senta confuso in questo flusso che è sempre più grande ogni giorno e quindi non sappiano a cosa credere o credano alla cosa che gli sembra più facile, più sentita, più vicina alle loro credenze. Per es., molte persone non credono nel vaccino... vadano avanti con questo pensiero. Ormai ci sono tante notizie. Cosa puoi fare? Lasci stare questa persona… anche perché uno non è un dottore quindi non hai credibilità. Infatti, qualcuno che conosco ha chiesto a un avvocato che diritti avesse, perché non si vaccinava… che cosa sarebbe successo? Quello gli ha detto: vai un dottore a chiedere.

L: A me venivano in mente due questioni. Uno è la salienza del caso singolo. Mi sembra che nelle persone attecchisca meglio o abbia più… crei un legame tra l’emotività e la razionalità più stretta… la salienza del caso singolo, cioè… “ah, a tizio è successo questo… a caio è successo questo” e le persone tendono a ricordare di più e a dare più valore a una lettura più personale in cui è più facile immedesimarsi rispetto a un banalissimo articolo, impersonale, che magari uno legge mentre beve il caffè e verso il quale non sente nessun legame emotivo. Per esempio, quando si parla degli effetti collaterali dei vaccini si appigliano alla narrazione del caso singolo. D’altro canto, io penso che ci sia un uso molto più elevato delle fonti, ma che in realtà ci si ferma a questo, alle fonti. Si pensa che le fonti bastano per fondare un’opinione. Non è così. Chi ha fatto un po’ di ricerca, io ne ho fatto un minimo, ho fatto la magistrale… ecco uno si rende conto che dietro la ricerca non c’è solo la fonte, c’è un campione, c’è una statistica, ci sono anni di studio. Non è che se mi spiaccichi una statistica lì hai ragione: che campione hai usato? Non è che il cittadino comune, siccome si appoggia a una fonte, allora può legittimare così un’opinione. Non sono d’accordo. C’è un necessario rimando alla competenza, che non è la conoscenza, ovvero se un medico mi parla di fonti e mi dice che ha letto tot articoli scientifici non è la stessa cosa che se lo faccio io, perché io non sono un medico. Io non ho seguito l’iter di sperimentazione dei vaccini, non so come si selezionano i campioni, non so come si fa il gruppo di controllo… non so tutta una serie di passaggi… e non ha la stessa valenza. Anzi, la fonte diventa uno strumento negativo, perché tramite le fonti si sentono competenti, ma non lo sono. Non è ho letto un articolo su La Repubblica. Non è competenza, perché se non hai un metodo mentale per leggere quell’articolo, leggi male, o lo leggi come lo vuoi leggere, usando un bias di auto-conferma delle credenze che hai già. Ognuno legge quello che vuole leggere. La psicologia sociale… si sa. Come lo stai leggendo? Da persona che magari ha un’ansia rispetto a quell’argomento? Cosa sto cercando quando leggo? Questa domanda lo scienziato se la fa… e il cittadino? Sono scevro da una ricerca di conferma dei miei pregiudizi. La scienza in mano alla moltitudine rischia di diventare poltiglia. Sì, la scienza in mano a tutti, ma anche gli strumenti. Non è che basta se mi citi una fonte allora la tua opinione ha un valore… chi sei? Non è che se mi commenti su Facebook…

Ricercatrice: colgo lo spunto per sottoporvi un altro stimolo… siccome l’UE finanzia e stimola gli scienziati ad avvicinare la moltitudine alla scienza, promuove questi progetti per fare in modo che gli scienziati condividano questi risultati… a questo punto tu dicevi che non basta, il cittadino deve elaborare con degli strumenti… quali politiche le istituzioni dovrebbero sviluppare… cosa si dovrebbe fare per favorire questo dialogo.

E: Io volevo correggermi… io avevo condiviso un articolo sul tema della sensibilizzazione delle forme di autismo… questo è in Facebook. Mi sono ricordata. Non vado però a verificare le fonti. Per sentimento, allora condivido… poi per altro… sono una persona comune, non ho competenze specifiche. Sì, leggo articoli sul clima, sono favorevole alla scienza… ci sono stati tanti passi che la scienza ha fatto. Ma non ho approfondito tantissimo la scienza.

Ricercatrice: rispetto alla tua esperienza, come favoriresti questo dialogo tra scienza e cittadinanza?

E: rispetto alla mia esperienza, sono stata curata dal 1999, ho avuto un sarcoma… sono stata in cura e grazie ai medici, tuttora faccio follow up e so che è importante. Io sono una persona comune. Non so nulla di scienza e della ricerca. Però avevo lavorato come mediatore per le traduzioni. Non era una cosa che riguardava la scienza. Era più culturale.

Ricercatrice: io ti ringrazio per questo intervento, hai riportato al centro della discussione, cioè la tua vita quotidiana. La tua malattia ha avuto beneficio di una conoscenza scientifica che non ti apparteneva, ma non appartiene a nessuna di noi. Però, lo riconosci.

E: in campo medico e psicologico. Sono stata seguita. Grazie a loro oggi sono presente. Se non avessero fatto progressi nella ricerca, non sarei stata qui. C’è stata un’altra volta in cui avevo condiviso un articolo dell’istituto dei tumori e lì tante persone mi hanno parlato perché sapevano del mio passato. Allora lì ho parlato anche della mia esperienza.

Ricercatrice: il senso di questo gruppo è questo: un conto è parlare della scienza, con la S maiuscola lontana dalle nostre vite… noi come donne abbiamo una scienza quotidiana che è stata sviluppata nei millenni. Non nei secoli. Sappiamo quando è giusto telefonare a un medico quando c’è una persona in casa che sta male, o se bisogna aiutare un bambino… aggiungerei all’idea della scienza con la S, ma anche con la scienza praticata con la s minuscola, senza la quale la vita sociale individuale e l’esistenza su questo pianeta non ci sarebbe. Se non ci fosse stata questa sapienza, le cose sarebbero andate molto peggio.

E: Tra l’altro io ho due figli e queste cose le ho vissute sui miei figli. Cercavo di contattare la loro pediatra… io sono sempre stata… una persona che crede nella scienza.

T: Mia zia ha avuto un’esperienza con la figlia. Il marito non sapeva cosa fare, mentre mia zia è intervenuta. Io non sono infermiera, ma alcune cose avendo due figlie le impari. Sì, la conoscenza delle donne ha avuto un impatto nella storia molto importante. Anche il discorso di prima. Cosa avevi detto prima?

Ricercatrice: cosa si potrebbe fare?

T: Io a tal proposito posso riportare la mia esperienza al liceo linguistico… ovviamente piena di ragazzine… molto intelligenti. In generale, volevamo dei temi di attualità con le prof., solo che a scuola non volevano perché bisognava seguire il programma. Non volevano mettersi lì a discutere su come leggere gli articoli. E secondo me aggiungere un’ora su come usare gli strumenti, anche solo un’ora…potrebbe essere un buon modo per capire. Io ho qualche amico che ha frequentato un istituto tecnico… non sono capaci di capire un testo. La loro comprensione del testo è scarsa. Quando parlo… a volte mi dicono, ma cosa hai detto? Già la mia generazione non ha gli strumenti. A volte invece qualche adulto mi chiede: ma tu come fai a sapere se una notizia è vera o falsa? Beh, controlli le fonti, ti informi, e poi vai a cercare altre info o articoli…

P: In relazione al Covid, io ho visto persone normali (docenti, dottori in pensione) che dicono: “Sai che forse quella cosa attutisce… dai proviamo!”. Non andiamo a verificare la fonte, però provano… quando senti che un medico dice: “mah, male non fa…”. Aspetta un po’ che lo provo anche io. Perché c’è un mondo di disinformazione. Io mi rendo conto che l’informazione che c’è anche scientifica è battente, pressante, ma è difficile per le persone normali… è difficile capire anche come cecare la fonte. Il fatto… della fiducia alla fine. Io penso che tu hai gli strumenti… in qualche modo avviene un piccolo plagio, detto in modo buono. Ed è una ruota che si sta ingrandendo. Non parlo della violenza di genere, perché lì c’è poco da andare alla fonte. Rispetto alle malattie, io ho una figlia che ha 31 anni da quando è bambina soffre di tonsilliti spaventose e non la operano, mai voluta operata. Io non ho gli strumenti. Persino adesso che vive in Portogallo e lei è nel panico. Ha solo 5 tonsilliti in un anno e ne dovrebbe avere 8 per la statistica. O pago o se no nulla. C’è una statistica. Se ne fai meno di otto. In Portogallo come in Italia.

Ricercatrice: Ovviamente io sono nata in un’atra epoca, senza che tu chiedessi niente, ti davano un bel gelato e ti toglievano le tonsille. Le scoperte, le ricerche cambiano… questo è importante. Il paradosso è che prima te le toglievano senza dire nulla, ora non te le tolgono quando ne hai bisogno.

P: Ci sono i famosi protocolli. Quando devi entrare in relazione alla persona, alle conseguenze… tutto a blocchi. Se uno ti parla di una mano, parla di una mano. Non ti sa parlare del piede. Non c’è un discorso sulla persona, sull’anima. La scienza, che da un punto di vista chirurgico ha fatto dei salti, su altre malattie non si tiene in conto della persona. In questo la scienza è carente da un punto di vista umano.

L: Non è un paradosso, anche nella scienza c’è una cultura della scienza, su cui poi la scienza si basa, basa i suoi protocolli, e sui quali si basa la cura della persona. Non è lo stesso tipo di cultura… A me nessuno è mai riuscita a curarmi, va a finire che mi curo io, per conto mio. La mia fiducia nella scienza va oltre… il fatto che non ci siano riusciti con me non vuol dire che la scienza non funzioni. Vuol dire che c’è ancora da indagare. Fermarsi a se stessi non basta. Rispetto ai consigli… mi è venuto lo spunto sentendo parlare T. Un punto focale è che la conoscenza in ambito liceale viene ancora trasmessa come se avessimo bisogno dell’accumulo di conoscenza, ovvero imparare il fatto e non imparare a capire e a trovare il fatto. Ciò che dagli anni 90 il pc ha introdotto è il sistema delle cartelle. Adesso abbiamo una conoscenza talmente sconfinata e una capacità di reperire le info e di poterle catalogare che è diventato inutile tenerle nel cervello. Nessun professionista lo sa. Nessuno sa a memoria il libro, nessuno storico sa le fonti. Io insegnerei a usare la conoscenza. Perché continuiamo a imparare 30.000 date. Perché non impariamo come si usa l’informazione? Come usarla. Si sa che la conoscenza è basata su una matrice di expertise, ossia aver creato un network di categorie base al cui ancorare le info che stanno nella memoria di lavorare… basterebbe creare questo expertise di base. Si cumula un surplus di informazioni, invece di insegnare.

Ricercatrice: Se dovessimo fare un passo in più… pensate anche gli scienziati che sentiamo in tv… in che modo questa scienza astratta può essere più vicina al cittadino/a qualunque?

Ricercatrice: vediamo se prima ci sono degli altri interventi, per esempio T. o I.?

T: io volevo collegarmi al discorso di prima… mia madre ha una malattia, e deve prendere questa malattia. Lei era scettica sul vaccino. Poi il medico le ha spiegato che lei era una categoria fragile. Ha cambiato idea per il parere del medico. Mia madre da cittadina comune si è avvicinata. Poi ha fatto anche una dieta, ma in ospedale non glielo avevano detto.

I: Volevo collegarmi al tema di comunicazione. A me è successa una cosa. Due anni fa, in seguito ad un’operazione è risultato che ho un’endometriosi. È iniziato un iter di controlli. È due anni che frequento il centro endometriosi. La prima cosa è che il medico mi ha detto è: “sappi che la gravidanza riduce tantissimo i sintomi”. E io: “ok, non ho in mente di rimanere in cinta”. Quella è stata la prima volta che l’ho incontrato. Poi abbiamo cominciato a parlare dei trattamenti ormonali. Dopo mesi sono riuscita a trovare una pillola anticoncezionale e ho iniziato a prenderla convinta che la pillola mi coprisse anche dal punto di vista contraccettivo. Allora ho iniziato questa pillola. Quando mi sono mossa per comprarle mi sono rivolta al consultorio, perché ho meno di 25 anni e ho la pillola gratuita. Al consultorio mi hanno detto che la pillola che mi ha prescritto il medico non risulta come contraccettivo. Quindi panico! Sono andata dal medico e gli ho fatto presente questa cosa e lui: “tante ragazze giovani mi dicono questa cosa… state tranquille!” Avrei bisogno che lei mi dicesse che devo stare effettivamente tranquilla. E lui comunque ha sviato dicendo che “devo stare attenta”. E io sono caduta dal pero. Quindi, già io per precedenti esperienze ero scettica di mio, rispetto alle figure maschile… questo episodio, mi ha lasciato un po’ così. Mi sono sentita non capita. Stavo chiedendo una parola… non di confronto… avevo bisogno di stare tranquilla, anche perché ho un compagno. Mi sono sentita male. Non so se sia legato a un problema di sensibilità perché si tratta di un uomo che non porterà mai in grembo un bambino. Mi sono sentita sminuita, così, nello stare in ansia. Ho percepito il muro. Mi chiedo se succederà mai che anche l’uomo in quanto uomo avrà un certo tipo di sensibilità… non mettersi nei panni, perché è difficile, ma mettersi in una posizione di ascolto. Siamo tutte persone, a prescindere dalla patologia. C’è un’anima. Ho percepito molti limiti in quella situazione.

L: Ti rassicuro dicendo che a me è successo con due donne!! Avevano deciso che avrei avuto un trombo e una gravidanza tutto insieme! Bellissimo… un’esperienza super. Non è un problema maschile è un problema di comunicazione. Di attenzione alle persone. Vai dal medico, 5 minuti… si basano su quello che dici, ma io non sono una cartella medica. Non è solo un problema maschile.

Ricercatrice: il tema della carriera nella STEM. Ci sono tanti studi su come andare oltre i luoghi comuni per far iscrivere le donne nelle STEM, soprattutto in alcune discipline. Cosa ne pensate? Avete delle esperienze dirette o indirette?

E.: No… io mi occupo di intercultura. Ne ho sentito parlare però… è giusto che le donne entrino dappertutto e si occupino anche di cose scientifiche per abbattere gli stereotipi. Però… non ho altre conoscenze. La mia nipotina ha scelto le scienze applicate. Mi diceva che sono pochissime le donne. Non so… le donne concorrono come i loro compagni maschi perché non sono di meno. Non ho una conoscenza. È giusto che le donne facciano la loro parte, per il merito, non per favoritismo.

I: Io credo che la questione riguardi anche l’età dell’infanzia. Sin dalla scuola materna era difficile che io femmina potessi fare delle cose da maschi e questa cosa me la sono portata dietro, i miei interessi sono stati convogliati verso altro. Non so, forse… io ho sempre pensato che il trampolino di lancio potesse essere il fatto che tutti facciano quello che vogliono. C’è sempre l’idea di indirizzare… bisogna lasciare libero il bambino/a di scegliere liberamente.

Ricercatrice: Con la Casa delle donne ti è mai capitato di fare attività?

I: Non io direttamente, ma la Casa delle donne collabora con il Centro giovani che c’è qui a Parma, con ragazzi e ragazze delle medie. Fanno attività pomeridiane con laboratori pratici in cui tutti scelgono delle cose da fare e poi lavorano anche insieme e così mettono le mani in pasta su diverse cose. Il centro giovani fa un po’ di tutto.

L: Io invece non so. Non ho idee.

Ricercatrice: il tema è come favorire la partecipazione delle donne alla scienza. Si è visto per esempio che quei musei che avevano mostrato i volti degli scienziati/e, come lavorassero quotidianamente avevano aumentato la partecipazione dei cittadini alle attività del museo.

L: sicuramente l’umanizzazione favorisce. Abbiamo una società che vuole sapere tutto; non ci interessa il prodotto, ci interessa tutta la storia. È una strategia di marketing. Succede anche con gli artisti, non ci interessa solo il prodotto finale. Vogliamo l’accesso completo a tutto. Penso sia anche una stortura. Può anche… spesso quello degli scienziati sembra un club privato. Quindi rendere accessibile la scienza… mi ricordo che qualcuno diceva che se non sia spiegare un concetto in maniera semplice non lo hai capito abbastanza bene. Il problema è sempre tra… non svalutare le competenze, se no sembra tutto ovvio e semplice. Magari si svaluta quello che c’è dietro per arrivare a quella semplicità. Per esempio, di fronte a certi quadri di pittori, qualcuno dice “potevo farlo anche io”, senza comprendere tutto quello che c’è dietro. No! È sempre un buon equilibro tra l’accessibilità e la banalizzazione della semplicità. Per es. hanno provato a chiedere alle persone che si era avvicinate al museo che cosa le avesse attratte?

Ricercatrice: Sì, il fatto che l’immagine dei volti li avevi resi più vicini, meno lontani perché l’immagine che avevano dello scienziato era un po’ stereotipata, freddo... non umane. Avevano visto quella conoscenza più accessibile. Il punto che dici è importante, perché cosa significa più accessibile? Banalizzarla? I. ti vedevo fare sì con la testa.

I: Io mi sento molto distante dal club della scienza e sicuramente a me aiuterebbe tanto, com’è stato fatto, dare un volto a dei nomi. Alla fine sono persone. Credo che… è una cosa semplice mostrare i volti di chi lavora, abbatta un po’ di barriere. Mi sento più a mio agio.

L: Adesso funzionano tanto i TED talks. Spesso li seguo; mi guardo quelli di LIMES. Cose molto grafiche con qualcuno che ti spiega bene, oggettivamente ti rende tutto più accessibile. I TED Talks funzionano. Una persona ci mette la sua capacità comunicativa. Uno può essere un bravissimo scienziato, ma non aver voglia di comunicare, né di fare lo show.

Ricercatrice: poi il TED Talks ha un formato particolare. Ti spinge a interessarti di quella cosa in quel momento, ma poi non è chiaro se ci sia qualcosa in più dopo.

L: Il punto è che si passa dallo studio di una materia come conoscenza, ma di utilizzo di una materia come intrattenimento. Per far sì che questa cosa arrivi alla gente, la si rende intrattenimento. E così arriva. C’è sempre da porsi la domanda: in questo passaggio sta roba che diventa? Che cosa fanno queste persone dopo? Sono interessate a saperne di più o hanno passato un momento di intrattenimento. La conoscenza si crea, ma ci vogliono le basi. Se uno non le ha è inutile che guardi un TedT. Si è divertito.

Ricercatrice: E.? Volevi dire qualcosa?

E: io sono una cittadina comune, non sono a conoscenza… io vedo gli scienziati che parlano nei media, fanno bene a portare la loro esperienza, fanno conoscere, stanno con la gente, però per altre cose non saprei cosa dirti.

I: mi è venuta in mente una cosa. Negli ultimi mesi mi sono imbattuta sui social in specialiste che fanno divulgazione. Ci mettono la faccia e spiegano. Quello è un canale che mi piace. Abbatte delle barriere e mi fa venire voglia di ascoltare. Credo che sia efficace.

Ricercatrice: l’attivazione di un canale più diretto con il cittadino.

I: Rendono pubblico il video/post e noi possiamo leggerlo in modo gratuito. Mi piace molto. Arriva più facilmente.

### Members of a LGBTI+ group

|  |  |
| --- | --- |
| 20th September 2021 | Participantes:   * F1\_Facilitador 1; F2\_Facilitador 2 * P1\_Participante1; P2\_Participante2; P3\_Participante3; P4\_Participante4; P5\_Participante5; P6\_Participante6; P7\_ Participante7 |
| 18h30 |
| Online |

P1: Deixem-me pensar. Estou a fazer um doutoramento em Estudos Comparatistas, trabalho com Teoria Queer, neste caso aplicado aos filmes de terror. É a minha área. Particularmente a figura do fantasma feminino. Pronto, é esta assim a minha área. Não sei muito bem, conheci ao Ricardo no doutoramento de Estudos de Género, mas já não estou lá. E… não sei muito bem o que querem que diga mais…

F2: É só isso…

F1: É só dizer o que quiser dizer…

F2: E agora eu posso passar a palavra para o Tiago.

P2: Olá a todos, eu sou P2, sou chef de cozinha… e não sei o que querem… que dizer mais… não é? Estou aqui convosco para também apreender um bocadinho sobre o assunto de debate.

F2: Obrigado, P2.

P2: Nada.

F2: Vou passar a palavra para a P3.

P3: Olá a todos. Eu sou a P3. Pronomes, tanto faz, femininos, masculinos, neutros… Sara acho que é o mais fácil. E pronto, estou aqui para partilhar e estar com vocês e pronto é isso.

F2: Obrigado, P3.

F1: Sara, não sei se tem alguma possibilidade de melhorar um bocadinho o seu som no seu microfone. Só ouvi dizer assim um bocadinho abafado parece-me. Desculpe-lá.

P3: Vou tentar.

F1: Obrigado.

F2: Então vou passar a palavra para P4.

P4: Olá, boa tarde, o meu nome é P4. Nestes momentos trabalho com comunicação em Artes Plásticas. O pronome pelo qual sou tratado normalmente e masculino, é um bocadinho indiferente e pois, não sei o que mais dizer.

F2: Tudo bem. Obrigado, P4. E agora vou pedir à Laura.

P5: Olá. Então, sou P5, eu faço mestrado agora em Antropologia, estou escrevendo a minha tese. Foi um desafio. E isso. Pronomes, tanto faz, pode ser neutro… obrigada.

F2: Obrigado, P5.

F1: Obrigado.

F2: O César agora.

P6: Olá, boa tarde. O meu nome é P6, sou de Chile, tenho 45 anos e sou designer autodidata, trabalho fazendo limpezas cá em Lisboa e também ativista desde os 13 anos mais ou menos de vida. Também tenho trabalhado com ativismo de dissidências sexuais no Chile. Isso. Obrigado.

F1: Obrigado.

F2: Obrigado, César. E P7 agora.

P7: Estão-me ouvindo?

F2: Sim.

P7: Olá, boa tarde. Eu sou P7, sou brasileiro, de Belém do Pará, na Amazónia. Sou ator, diretor teatral, dramaturgo, escenógrafo. Eu aqui em Portugal faço um mestrado em Educação em Formação, especialização em mediação cultural. Estou terminando o mestrado e já entrando no doutoramento em educação artística, portanto estou nesse movimento de pesquisa, de encontros, tentando fazer conexões para a gente debater coisas interessantes, coisas que são necessárias, assim.

F2: Obrigado, P7.

F1: Obrigado. Assim sempre deu para perceber um pouco mais quem são as pessoas, quem somos nós. Então vamos iniciar. Ricardo, quando quiser.

F2: Ia mostrar a apresentação, professor, agora, sim?

F1: Sim. A parte introdutória já a conversamos.

F2: Sim. Bom, como o professor já referiu… e informação que vocês já têm na ficha do projeto que vocês já receberam pelo email. E aqui, se calhar, nos objetivos, que é criar novos conhecimentos sobre como transformar a potencial participação das pessoas, dos cidadãos, das cidadãs na ciência, o envolvimento efetivo na investigação científica e revelar novas formas de comprometer atores da sociedade, incluindo jovens e grupos tradicionalmente excluídos da ciência, são objetivos importantes, sobre tudo para o processo do Focus Group que vamos fazer, que já estamos a fazer aqui, pronto. Aqui em Portugal, que o professor já referiu, alguns âmbitos do projeto, que vocês também já têm aqui, e o que eu queria sublinhar é a confidencialidade da informação que vocês vão partilhar connosco hoje, o tratamento dos dados. E, para já, agradecer o consentimento que vocês nos enviaram para nós termos aqui a vossa autorização para o uso da informação, para a gravação da sessão e para a análise dos dados que vocês vão partilhar connosco nos próximos minutos. E para começar, vamos com o primeiro tópico então da conversa de hoje.

F1: Hei de referir que estes tópicos são conclusões de estudos ou conclusões de análises que o próprio projeto já foi fazendo de algumas outras dimensões do próprio projeto de investigação, nomeadamente da análise de redes sociais, de informações que circulam nas redes sociais e esse mesmo tópico que têm aí à vossa frente, que deriva, no fundo, de essa análise.

F2: Então, a partir daí, do que o professor está a referir… tem sido uma investigação… as redes sociais estão incluídas como eixo de análise no projeto, portanto, o primeiro tema que queríamos conversar hoje convosco é isto: que há exemplos no Instagram de como os cidadãos se beneficiam da investigação para promover campanhas sociais ou ativismo. Por exemplo, o uso do hashtag #StopBullying está relacionado com protestos sociais contra o racismo e a violência escolar e também torna visível a necessidade de quebrar o silêncio e de se tornarem espectadores ativos contra a violência.

F1: Pronto. Pode parecer um pouco abstrato, mas eu presumo que todos nós… se calhar presumo mal e se estiver errado manifestem-se, que todos nós temos algum contacto com redes sociais, no necessariamente Instagram, mas outras redes sociais, e se quisermos, para… no fundo desmitificar que a discussão em torno a este tópico não seria uma pergunta mais concreta, não é? Em quê medida, na vossa experiência quotidiana, de utilização das redes sociais, Instagram ou outras, se têm deparado com este tipo de campanhas em que… o melhor, com hashtags que remetem a nossa ligação para resultados de investigação? Porque este hashtag #StopBullying depois vai dar, digamos assim, na sua origem está muito relacionada também com os resultados de pesquisa em torno às questões de bullying e de prevenção do bullying e que estão de alguma maneira baseados em resultados de pesquisa. Portanto, de uma forma muito concreta, perguntaria, da vossa experiência quotidiana, no contacto com as redes sociais, se é relativamente comum ou incomum depararem-se com este tipo de campanhas que remetem, digamos assim, para resultados de pesquisa. Se é uma coisa que vos acontece muito, pouco…

P1: Querem alguma ordem no debate?

F1: Não, não. Livre.

P1: Eu vou ser muito sincera. Eu nem sequer sabia que isto acontecia, porque a maior parte do ativismo que eu vejo, a não ser que siga uma página específica, por exemplo a ILGA ou qualquer coisa do género, eu não tenho tendência a seguir hashtags, mas quando há assim movimentos grandes, como houve com o *Black Lives Matter*, se seguíssemos o hashtag, eu encontrava mais as vozes das próprias pessoas que estavam no terreno e que depois poderiam dar informação para estudos acadêmicos e coisas mais aprofundadas do que propriamente as instituições ou os acadêmicos ou referências diretas. É sempre através de terceiras ou quartas ligações que uma pessoa chega lá. Eu, pelo menos, nunca tive esta experiência de… lá está, a não ser que siga páginas especificamente.

P2: Eu, por mim, peço desculpas… não sei se já tinhas terminado…

P1: Já, já, obrigada.

P2: Eu, por mim, eu não fazia mínima ideia de que os hashtags estavam ligados a qualquer evento científico ou estudo científico. Eu pensei que os hashtags eram uma maneira de compilar informação relacionada com aquele tema. Não fazia mesmo a mínima ideia que, por exemplo este #StopBullying estava ligado com qualquer estudo científico ou outro. Estou a ser apanhado de surpresa. Não fazia mesmo a mínima ideia.

F1: Devo dizer que nem todos os hashtags têm essa origem, não é?

P2. Pois, ok, eu nem sabia que…

F1: A maior parte, pela experiência que eu tenho também, a maior parte é, também, uma forma de canalizar informação sobre um determinado tema…

P2: Acumular informação sobre um determinado tema. Eu não fazia mesmo a mínima ideia de que havia um sequer hashtag que fosse ligado à ciência e que era uma coisa mesmo de aglomeração de informação por tema. Por isso estou a ouvir o assunto pela primeira vez.

P7: Eu posso falar?

F1: Claro.

P7: Oi, oi. Eu acho que tem um movimento e aí eu vou falar de um lugar que é muito na perspetiva brasileira. Acho que a gente tem um movimento de redes sociais aonde o debate ele… muitas das coisas que se estão discutindo no Brasil hoje nascem dentro das redes sociais. Por exemplo, quando a gente vai falar sobre as questões relacionadas a racismo, que eu acho que é algo que pelo menos é algo que eu tenho mais conhecimento e que eu estou muito mais ligado sobre o tema, eu percebo e também… E também sobre as questões LGBTQA+ eu acho que são dos pontos assim que me chamam mais a atenção, que eu sempre estou ali vendo e tentando perceber o que está acontecendo. Eu acho que existe um movimento muito grande da gente perceber que as pessoas… pode começar como uma Hashtag, mas que isso vai se transformar dentro de um debate muito rico dentro das universidades, por exemplo. Eu me lembro que quando estava estudando no Brasil e isso lá no comecinho de essa coisa mais forte das redes sociais e tudo, a gente já percebia que isso reverberava dentro da academia. E isso, no passar dos anos a gente vai percebendo que esse movimento, pelo menos no Brasil, né? Porque eu desconheço completamente aqui em Portugal como é que se configura essa questão, mas no Brasil a gente percebe um movimento muito grande de estudos que nascem a partir de inquietação que nascem da Internet. Por exemplo, você vai perceber que tem alguns autores vão ganhar uma notoriedade, como a Djamila Ribeiro, por exemplo, ela vem a partir de uma pessoa que escreve e que o que ela fala através das lives e através de toda a movimentação que é feita por algum tema específico relacionado ao racismo, aquilo vai tomando um caminho e faz com que as pessoas, por exemplo, utilizem um livro, utilizem a pesquisa dela e façam desdobramentos sobre essas temáticas que ela traz dentro da fala dela, dentro de essa escrita. Então, eu acho que pelo menos no Brasil é um movimento que eu percebo muito grande das pessoas utilizando esses debates que já surgem nas redes sociais para levar isso para a academia. E se a gente for olhar também por exemplo para a produção acadêmica contemporânea do Brasil e alguns cursos específicos, a gente vai perceber muito a gente fazendo essa ligação com esse universo da Internet, universo que é debatido ali e que muito das coisas que a gente pensa que tem uma necessidade da gente falar, vai surgir ali, principalmente nesse período que nós passámos, onde todo o mundo estava em casa, então a Internet virou um lugar onde as pessoas precisam debater. E muita coisa começou ali, mesmo que isso se desdobre numa coisa mais presencial, mas muitos de esses estúdios eu acredito que a partir daí, vão surgir a partir dessas inquietações. Em fim, não sei se eu fui claro.

F1: Mas alguém? Sara?

P5: Posso falar?

F1: Sim.

P5: Então, não sei… a partir do que P7 estava falando eu lembrei um pouco de uma hashtag que eu vi ultimamente que era de umas mães indígenas, que têm usado bastante as redes também como forma de calcar questões políticas, né? Eu acho que as hashtags são muito ligadas às questões políticas de botar em pauta que são necessárias. Até veio a demarcação, a questão da demarcação das terras indígenas tiveram agora um hashtag que tinha a ver com isso. Eu vi a muitos dos meus amigos de Antropologia e dentro da academia usando a hashtag para falar dessas questões ligadas a questões indígenas. Me lembrei um pouco disso também.

P4: Posso?

F1: Sim, sim, claro.

P4: Eu relativamente ao benefício que as redes sociais possam trazer para os debates e para a investigação, eu penso que sim, que não há sombra de dúvida que acrescentam algo, não é? Contudo, o que eu estou a pensar é que tipo de metodologias se podem usar para usar essa informação, não é, que existe num meio de comunicação, considerando as redes sociais como um meio de comunicação, que tipo de metodologia é que se podem usar para retirar informação. Por exemplo, ao nível dos hashtags, vamos contabilizar hashtags? Como é que isso se faz. É mais uma questão do que um comentário.

F1: Da métrica, o P4 estava a dizer da métrica e depois do impacto, como é que se mede o impacto. É isso?

P4: Sim, sim, e como é que se usam esses números, por exemplo para uma investigação científica, por exemplo.

F1: Mhm.

P1: Eu acho que a questão que P4 colocou é bastante relevante, tendo em conta que todas estas plataformas são geridas por empresas, não é? Empresas grandes. Por exemplo, Instagram agora faz parte do Facebook. E como nós sabemos, Facebook tem uma rede de control brutalíssima naquilo que deixa e não deixa estar online, etcétera. E sabemos também que há uma tendência a silenciar ou pelo menos a dificultar que as vozes de pessoas não brancas, não heterossexuais, etcétera, etcétera, se façam ouvir. E o Facebook é um exemplo clássico disso e também já aconteceu noutros sites tipo Tumblr e em fim, e agora em outras redes sociais também, com outro tipo de… Por exemplo no Onlyfans com sex workers… ou seja, acontece muito e está a acontecer cada vez mais. Eu partilho um bocadinho a inquietação de P4, porque ao mesmo tempo que vejo mais pessoas mais diversificadas a usarem as redes sociais para tentar fazer a sua mensagem chegar mais longe possível e de forma mais informativa possível, também vejo que há um esforço… não sei se diga esforço porque isso parece um bocadinho intencional e também não quero estar aqui tipo… teoria da conspiração, mas que há de facto uma tendência para que haja targeted people em relação a este tipo de silenciamento também é evidente e nós vimos isso com a campanha de AllRights no Facebook ou silenciamento de conteúdo LGBT no Tumblr ou coisas assim deste género. E portanto, quem vai estudar estas questões também se põe esta questão. Ou seja, qual reliable… desculpem, eu uso o Inglês muito como bengala… quão reliable é toda esta informação. Porque, primeiro, é uma quantidade de informação incompreensível, não é? São milhões e milhões… é milhão de conteúdo criado por segundo. E depois, como é que… que mecanismos é que temos para nos proteger da própria plataforma, como é que sabemos o que é que está a ser silenciado ou que não está, será que uma boa forma de, de facto, só olhar para social media ou será que depois tem impacto mesmo na vida real. Ou seja… todas estas questões são um bocadinho inquietantes, especialmente para esta questão de saber que existe este silenciamento online de determinadas redes sociais.

F1: Mais alguém? Surgiram aqui, do que vocês têm estado a dizer, dois ou três pontos que me pareceram interessantes. Por um lado, como as redes sociais podem ser eventualmente, não apenas um veículo de tradução da informação científica para o público, mas ser também o inverso. Não sei se entendi bem… ou seja, por um lado pode ser uma plataforma de divulgação científica, mas também ela a porta de entrada para, se nos quisermos assim, novos objetos de estudo. Ou seja, as ciências se preocuparem com os debates públicos que estão a acontecer e transportarem isso. Não sei se percebi bem isso. Por outro lado, a questão também de algumas inquietações relativamente à, se quisermos, à veracidade ou à qualidade de informação que é disponibilizada através das redes sociais, sendo que é difícil certificar, se quisermos, a origem inicial da informação. Será isso? Ou me perdi um bocadinho no meio. Não sei, pelo menos interpretei assim algumas… coisas das que têm estado a dizer.

P1: Sim, eu da minha parte, sim, e agora já aproveito para acrescentar a questão do ativismo performativo, não é? Porque nós sabemos que há muito ativismo que é, de facto, informado. Mas, pensando outra vez na questão do Black Lives Matter, quando foi aquela questão de toda a gente estar a partilhar os quadrados pretos… enquanto havia pessoas ativamente no terreno a pedir que não o fizessem, porque isso estava a entupir as hashtags e impedia às pessoas que precisavam de informação na altura e informação urgente… sítios escuros para assustar, onde ir a buscar água ou alimentos, etcétera, e que não conseguiam ter acesso a essa informação porque era uma data de malta a por lá os quadradinhos e não sei o que. Pronto, ou seja, se um investigador fosse olhar para essas questões, a minha questão era: será que chegaria a essas vozes o será que só veria os quadradinhos. E acharia que sim, é de facto um sinal de mudança social, está todo muito unido, etcétera. Eu tenho muita fé nas redes sociais, mas ao mesmo tempo estas questões inquietam-me porque eu acho que muitas vezes as redes sociais têm tendência a ser um bocadinho espelho do aquilo que já acontece fora das redes sociais, que são as mesmas pessoas que já têm voz, continua a tela e a ocupar o espaço. Sempre que há um bocadinho de espaço para pessoas que ainda não o tinham, ele vem ser ocupado novamente… não sei.

F1: Deixa-me fazer uma pergunta adicional, para todos obviamente, para todos e todas. É preocupação fundamental para vós que o caminho seja feito, digamos assim… deixem-me fazer a pergunta de uma forma até se quisermos um bocadinho provocatória: que o caminho seja feito do público geral para a ciência ou que seja da ciência para o público geral. Isto é… ou seja, é o público geral… as redes sociais funcionariam como um veículo de transmissão num sentido? Ou seja, aquilo que é realidade social em construção permanente para a ciência para se tornar uma preocupação da ciência ou para a ciência também deveria estar preocupada em chegar ao público em geral através dos mecanismos que estão ao acesso de todos e de que maneira isso poderia ser feito? Qual é que é a vossa preocupação fundamental? Enquanto cidadãos, evidentemente.

P6: Eu acho que tem que ver com qual é o conceito que a gente maneja sobre as questões da ciência porque para mim especificamente, quando a gente fala de ciência, estou sempre a pensar que é uma investigação sobre medicina, sobre novas células, etcétera, etcétera. Então, não concebia a ligação que tem a investigação científica com as redes sociais. Mas também o meu próprio uso de redes sociais são distintas em cada uma das redes sociais que eu utilizo. No Instagram, por exemplo, é só para compartilhar algumas coisas do ativismo ou coisas próprias de, não sei, passeios, etcétera. No Facebook partilho muitas coisas políticas do Chile e também que tem que ver com feminismos e com dissidências sexuais. No Twitter é só para descarregarme pessoalmente sobre alguma raiva que tinha por algum tema em específico também. Então, aí são… os hashtags que utilizo são super distintos em cada uma de estas redes. E o meu conhecimento disso tampoco (também não) tinha uma conexão com isso, com estes estudos científicos. Só utilizo hashtags porque sei que há gente que se une ou faz algum tema em comum com a utilização de estos termos. Agora é como… sim… tem toda a razão que há gente que vai utilizar estes dados para su próprio benefício ou para um benefício mais grande. Aí haveria que ver um bocadinho mais isso.

F1: Algum de vós ou alguma de vós utilizam as redes sociais para chegar a conteúdos científicos ou acadêmicos ou não é nunca essa via que utilizam?

P4: Eu, no Facebook, por exemplo, sigo imensas páginas de divulgação… ou não diria que de divulgação científica, mas de temática de determinada várias que normalmente levam a artigos, a publicações de… os média, num sentido xxx, mas que quando os média fazem um bom trabalho de divulgação científica, acaba por ser, de certa forma, divulgação científica na mesma. E por isso acho que as redes sociais como um meio de comunicação ou como um veículo para a comunicação, devem ser usadas por quem trabalha no meio académico ou quem faz investigação. Acho que faz tudo sentido divulgar e informar às pessoas da melhor forma. Ou seja, de outras formas além dos meios tradicionais. E por isso sim, eu acho que as redes sociais devem ser usadas nesse sentido, definitivamente.

P2: Olha, eu, na mina opinião, não sigo especificamente nada nas redes sociais para tirar algum proveito científico. Como disseram anteriormente, eu sigo média e a partir daí e a partir dos média, do que eles publicam, se for alguma coisa que eu tenha interesse de nível científico, então eu vou investigar diretamente e não pelas redes sociais. Depois, o que eu acho da pergunta que foi feita, se devia ser a ciência a projetar nos média ou as pessoas à procura… se era nos meia não, se devia ser projetada nas redes sociais ou as pessoas à procura nas redes sociais, temos aqui, e nos últimos anos começámos a ver isso muito desde um ano e meio principalmente, a questão científica divulgada nas redes sociais, há sempre aquela outra face da moeda de quanta informação ou das *fake news* que se espalham muito mais facilmente do que o… do que um artigo sério, não é? O artigo sério, ao meu ver, tem mais dificuldade em se espalhar nas redes sociais do que uma *fake news*, do que um artigo menos sério e por isso, se calhar, às vezes chego a um ponto, eu próprio chego às vezes ao ponto de não saber se aquela informação que tem todo o ar de ser muito científica e muito sério e que não sei o que, se ela é verdadeiramente para ser tomado em conta ou em consideração ou não. Às vezes fico um bocadinho neste balanço se é um artigo credível, se não é, como é que eu vou conseguir facilmente, porque depois eu, pessoalmente, quando o artigo me interessa, vou investigar e descubro se acredito ou se não é. Mas acredito, se calhar, que há muitas pessoas nas redes sociais, que não o fazem. Que vêm um artigo, que tá lá, que é da universidade do não sei quanto ou de não sei o que, e para eles já chega para ser uma certeza absoluta, não é? É esse às vezes o risco que eu vejo na divulgação da ciência nas redes sociais… porque não sabemos sempre, nunca temos a certeza se é sério, se não é sério, se temos de ter em consideração, se não temos de ter em consideração, e acredito que a maior parte das pessoas não consiga fazer, ou não queira, não tenha predisposição para fazer às vezes o que eu faço que é ir investigar verdadeiramente se é ou não um artigo credível.

P1: Eu acho que P2 levanta aqui uma questão muito interessante, que é a diferença fundamental… para mim, pelo menos isto é uma visão pessoal logicamente, que a ciência é lenta de fazer. É normal, não é? Para ser rigorosa, etcétera, tem de seguir determinados preceitos e determinados passos, etcétera. E muitas vezes anda para atrás também, também acontece. Nós vimos agora com esta questão toda do Covid, vai se descobrindo coisas que contradizem outras, que supostamente… é normal, a ciência funciona assim. E depois, para além disso, é lenta… tudo o processo. E as editoras também um *code gate keeping* nos artigos e etcétera, portanto toda a ciência é lenta. E as redes sociais não vivem de coisas lentas, não é? Acho que por isso também há essa dificuldade… para já, estou completamente de acordo com o Tiago naquela dificuldade de o que fazer contra a contrainformação, não é? Contra… é um assunto complicado. E depois esta questão dos ritmos e por vezes as próprias redes sociais não têm propriamente um formato profundamente compatível com os formatos académicos, que são coisas mais longas, mais… às vezes quase inacessível, tanto do ponto de vista monetário, como também do ponto de vista la linguagem, dos conceitos, etcétera, etcétera. Então acho que também há esse… e para responder a sua questão, acho que idealmente deveria ser um bocadinho dos dois, não é? Acho que era bom as pessoas no mundo académico olharem mais para a parte das redes sociais, mas com sistemas sólidos e com cuidados redobrados. Mas ao mesmo tempo também acho que devia haver uma presença mais das investigadoras e das instituições especialmente… eu também não quero estar a por a tônica só nos investigadores, coitados, que já têm mais do que trabalho suficiente… acho que as instituições fazem muito pouco para apoiar os seus investigadores na presença nas redes sociais. E isso poderia começar, por exemplo, só com uma simples verificação, não é? Pedir ao Twitter ou ao Instagram ou o que seja, para verificar as instituições, como fazem com as celebridades, não é, do género se a Kim Kardashian está verificada, porquê e que a Universidade de Oxford não está… pronto, coisas assim do género, coisas simples que se calhar passariam… e depois, de facto, desincentivar um bocadinho mais do que a ciência não é linear, e que não se faz em três volumes… não sei.

P7: Eu, eu acho… pausa dramática… não, mas a sério, eu fico muito pensando nisso. Ou seja, vocês estão falando e está me vindo muita coisa na cabeça. Eu vou dar alguns exemplos assim práticos que eu acho que é bacana quando a gente olha para algumas práticas e a gente consegue perceber um pouquinho… não sei se… pelo menos para mim está a fazer algum sentido agora. Talvez nem faça para vocês, mas eu tenho um momento específico dentro da minha cidade… existia… nas redes sociais existia uma espécie de um Facebook, de uma conta no Facebook que por exemplo eles iam assistir os espetáculos de teatro e eles faziam uma crítica de esses espetáculos e postavam isso no Facebook. E era algo que movimentava a cidade inteira, porque quem fazia teatro queria ver a sua crítica naquele, naquela plataforma específica, porque era uma chance de você partilhar, era uma chance de você ter uma análise crítica sobre algo que você estava produzindo, né? Aí a gente tem isso dentro de uma plataforma, né? A ideia era que isso não se tornasse algo académico no sentido de que: “oh, nossa, é um professor de Teatro”… não, eram pessoas que tinham feito curso de crítica e que de diversas formas queriam fazer uma produção escrita sobre aquilo. Aquilo foi começando a tomar uma proporção e aquilo começou a tomar uma importância porque as pessoas consumiam aquilo que era postado nas redes sociais, que aquilo começou a ser organizado por uma pessoa específica dentro de uma revista. Algo que estava dentro de uma plataforma, começou a ser organizada, porque aquilo falava sobre memória do teatro dessa cidade nesse período específico. Porque você tinha ali quase uns cinco anos aonde saíam críticas de todos os espetáculos que entravam em cartaz. Então, alguém teve a pretensão e alguém percebeu que ali tinha alguma coisa que poderia se transformar em um documento e aí alguém se debruçou em cima disso de uma forma muito mais específica e começou a organizar aquilo e começou a colocar todas essas conselhos… em fim, o que seja. E aí eu pensei nisso e percebo também que eu acho que as redes sociais elas podem ser um gatilho… eu acho que elas podem ser um gatilho para um pesquisador talvez se introduzir ou introduzir ou pesquisar mais sobre um tema específico. Aí a gente… vou lembrar, me veio à cabeça agora também… eu lembrei, por exemplo quando começou no Brasil a fazer um movimento de mulheres pretas começarem a falar sobre a solidão da mulher negra. E aí que foi um movimento que várias mulheres negras começaram postar nas suas redes como é que era a situação de ser uma mulher negra e ser preterida desde criancinha, não é? De que você não é a escolhida para ser a amiguinha da escola, que você não é escolhida para namorar com uma figura específica e aí se falava muito. Foi um momento no Brasil que se falou muito. E aí várias mulheres começaram a escrever nas suas redes. E aquilo começou a surgir um movimento do quê, um movimento de pessoas escrevendo sobre aquilo, que aí foram buscar bases teóricas para a gente tentar de explicar o por quê que aquelas mulheres estavam escrevendo aquilo naquele período específico. Então eu acho que a gente pode encontrar ali, eu entendo a fala dos outros colegas que disseram que a gente tem essa questão do que é crível o que é que eu posso tirar daqui, o que que é realidade e o que é que não é, aí eu acho que é a base… eu acredito que o pesquisador ou a académico que seja que vai pegar aqueles dados ali e vai tentar desmembrar isso dentro de uma perspetiva de compreender se aquilo tem a possibilidade de virar um estudo ou não, mas eu acho que é um gatilho. Eu acho que as redes sociais, elas estão hoje em dia fazendo algo que querendo ou não ela vai ter temas que vão tratar de formas mais latentes pela rapidez com que tudo passa ali, que talvez a gente, pelo tempo que a gente precisa para conseguir pesquisar e conseguir uma produção específica, a gente não consiga. A gente não consegue, né? Então acredito que as redes sociais acabam sendo esse lugar que eu tenho uma ideia, eu tenho algo que eu quero trabalhar com conselho específico eu xxx xxx. E aí eu acho que o desdobramento é ou essa pessoa, se as pessoas que estão lendo aquilo, se estão consumindo aquilo, querem desenvolver aquela questão. Mas eu acho que é super válido a possibilidade de que… eu acho que é uma via de mão dupla, sacas? Eu acho que é necessário a gente sair desse lugar um pouquinho de olhar com um pouquinho às vezes de preconceito e lê, lê o que tá lá e perceber se é válido ou não que aquilo tenha um desdobramento. Eu acho que é muito por esse caminho.

F2: Obrigado, obrigado P7. Só para dar um contexto, no projeto que estamos a desenvolver tem um âmbito de análise que são mesmo as redes sociais e estão a ser analisadas quatro redes sociais em particular: uma é o Instagram, claro, o Facebook, o Twitter mas também está a ser analisada o Reddit. Não sei se conhecem, mas o Reditt é uma plataforma tipo… a gente tem conversas muito mais extensas, mais profundas. É uma plataforma que permite muito mais partilha de conteúdo, porque não há limites de caracteres e coisas, e o que nós temos visto até agora é como é que cada uma das plataformas, como é que cada uma tem um público em específico, tem um público que até pode chamar a atenção a… por exemplo no Reditt pode até chamar a atenção de uma outra pessoa que publicou qualquer coisa de caráter científico e vais encontrar pessoas que vão pedir para aquela pessoa que publicou inicialmente a prova científica do que está a ser publicado, o que vai muito ao encontro do que vocês já falaram aqui sobre as contra notícias, as *fake news* a tal porque nalgumas redes é possível já perceber que há uma crítica ao conteúdo, mas também um pedido de conteúdo que é partilhado, que seja verdadeiro, para não caírem em desinformação das pessoas e também como é que cada uma das plataformas tem uma linguagem, um formato de publicar e isso está a ser muito interessante também, porque eventualmente nessa pergunta que o professor colocou e que vocês estavam a referir agora, como é que nós ou eventualmente a ciência ou a investigação científica poderia, eventualmente, utilizar as redes sociais como veículos de transmissão dos resultados, por exemplo, e como é que isso precisa ter uma tradução para atingir as pessoas que visitam, que usam normalmente essas plataformas. Por tanto, isto era um bocadinho de contexto para ir fechando o primeiro tema da tarde. Podemos avançar ao segundo ou se alguém quiser acrescentar mais alguma coisa? Ou podemos já passar ao segundo tema? Podemos? Ok. Então, está aqui o segundo tema. Vocês estão a ver, né? Diz: “Em muitas línguas o uso das formas masculinas tem sido tradicionalmente usado para se referir tanto a mulheres como homens embora também estejam disponíveis formas femininas. Um estudo interlinguístico (italiano e alemão) mostra que os pares de palavras ajudaram a evitar o preconceito masculino na tipificação das profissões e aumenta a visibilidade das mulheres. Ao mesmo tempo diminuem os salários estimados às profissões tipicamente femininas. Esse potencial de impacto tem implicações para as políticas linguísticas que visam a igualdade de género”. Este tema está muito presente sobre tudo nestes últimos anos que é como é que esta ideia do falso neutro, do masculino como o neutro universal, está a ser desconstruído de alguma forma, principalmente para dar visibilidade a outro tipo de expressões para atingir igualdade de género, políticas públicas, investigação científica também. Por tanto, esse é o tema que vamos debater aqui e agora nos próximos minutos.

F1: Em primeiro lugar, que comentário genérico suscita em cada um de vocês e em cada uma de vocês este excerto, este pequeno resumo de um resultado de pesquisa. Contem informação diversa, mas pedia-vos um comentário ou a vossa perceção do que está aqui em debate e depois já desde um ponto de vista genérico já poderemos explorar um pouco mais em concreto. Mas em primeira que comentário vos suscita estas afirmações.

P1: Eu tenho uma dúvida em relação com a citação. Precisava de um bocadinho mais de contexto se for possível. O que eu não percebo desta conclusão, principalmente o segundo parágrafo é se tudo isto acontece, tanto o homem ter visibilidade das mulheres e a questão dos salários, isto acontece porque… ou seja, o que é que eles estão a querer dizer acontece, porque como a forma feminina aparece… portanto torna-se possível nesse sentido? Ou isto acontece porque se vê a par do masculino. Ou seja, consegue isto porque põe-se em pé de igualdade com o masculino e torna-se a ter na mesma o masculino como o ponto de partida. Não sei se me fiz entender.

F1: Não tenho a certeza. Vou tentar dar-lhe uma explicação, não sei como é que vai encaixar o que estava a perguntar…

P1: Ok, ok.

F1: Porque eu acho que o que está aqui, em que estão em interação entre três planos diferentes. Por um lado, aquilo que são os resultados de pesquisa, não é? O uso… portanto os resultados de pesquisa vêm demostrar que o uso das formas masculinas tem sido uma coisa tradicional e que o uso da linguagem inclusiva favorece a visibilidade das mulheres, a visibilidade… e portanto também um acesso mais fácil a um determinado tipo de profissões e isso tem esse resultado objetivo, mas também tem um outro, que é uma espécie de desvalorização dos salários das profissões tradicionalmente femininas. E depois porque há este resultado, digamos assim aparentemente contraditório, isso causa uma espécie de xxx às políticas públicas. Então o quê e que nós fazemos? E esse é o terceiro plano: como é que na verdade se traduz o resultado de pesquisa científica, como é que pode ter coisas tão dissonantes como uma coisa positiva e uma coisa negativa e depois, eventualmente, promover uma indecisão política. É um bocado isto o que está aqui em causa.

P1: Obrigada.

P2: Deixem-me esclarecer só uma coisa: então… mas… aquilo que eu tiro do que está aqui escrito é que por causa da utilização da forma dupla de base, que podemos chamar assim, os salários tipicamente femininos baixaram. Esta parte é que não estou a perceber, se foi o resultado direto da utilização do “o” ou das “as” na baixa dos salários. Não sei se me estou a fazer entender.

F1: Segundo estes autores é uma consequência, não sei se a única…

P2: Mas é uma consequência direta, é isso que eles chegaram à conclusão?

F1: Se é uma relação direta? Não tenho a certeza que seja uma relação… ela existe, ela existe. A relação entre as duas coisas existe, agora se é a única, não sei. Agora que para eles terem chegado a essa conclusão baseada nestes estudos italiano e alemão, nesses dois casos existiu essa, pelo menos a correlação nem que não seja estatística da coisa. Nós sabemos o que é que isso vale também, não é? As correlações estatísticas podem ser xxx, mas terá de haver existido um momento, não é?

P1: Eu ia dizer só que esta questão da linguagem é tricky, não é? Principalmente para as línguas de base latim é difícil, não é? Mesmo quando tentamos ser inclusivos estamos a ser binários. Não há forma de fugir ao binarismo. Ainda. Mas haveremos de lá chegar.

F1: O plural…

P1: O plural sim, mas eu, enquanto pessoa não binária não me sinto nada confortável em que usem o plural comigo, não me faz sentido. Mas conheço pessoas para quem faz. Ou seja, também há essa vertente. Mas quer dizer… mesmo o plural, mesmo na nossa língua, é binário, não é? Eles, elas… ou seja eu acho que acaba por ser um bocadinho mais difícil em línguas latinas do que em línguas não latinas, porque há línguas não latinas que têm a opção neutra, mesmo usadas para pessoas, não só para coisas, não é? E não sei como se resolve isto, porque é mesmo uma questão base, base, base da nossa língua, não é?

P2: Pois, era isso mesmo o que eu ia dizer… Há pouco, há relativamente pouco tempo tivemos exatamente este tipo de discussão num grupo de amigos, estávamos a jantar e a gente sempre tem conversas para bater, né? E este assunto xxx da utilização do masculino como forma universal de tratar a toda a gente. O homem com “H”, não é? O “homem” de “humanidade”, com “H” e chegámos à conclusão exatamente do que estavas a dizer: existem línguas, nomeadamente o inglês, que facilmente conseguimos arranjar um género neutro para tratar a toda a gente, mas falando especificamente do Português, é muito complicado porque “o”, “a”, “os”, “as” continua a ser binário. Não há ali nada que defina às pessoas não binárias, não é? Teria que haver toda uma reformulação linguística e criação de um género neutro. E tudo isso acarretaria uma mudança drástica na educação, sei lá… toda uma mudança brutal…

P1: Os quadros gerais, etcétera.

P2: Isso mesmo, isso mesmo.

P1: Mas isso é uma coisa, e aqui permitam-me uma crítica, a pesar de estarmos numa coisa de Estudos de Género, essa é uma crítica que eu também posso apontar mesmo em relação aos Estudos de Género ainda aqui em Portugal, e que são… ainda há muito pouca investigação feita em género não binário. Quando falamos em igualdade de género, na minha cabeça eu penso “boa, igualdade de géneros”, mas na realidade acostuma ser sempre uma coisa muito binária, ainda. Ainda há muito pouca coisa sobre coisas não binárias, etcétera. Portanto, também acho que o próprio… não só o discurso civil e o debate político como o próprio debate académico aqui em Portugal, mas eu diria talvez… a minha experiência é mais com a academia britânica, mas… agora começa-se a falar mais das questões não binárias e sobre as pessoas trans e etcétera, más ainda se fala muito pouco e aqui em Portugal eu sinto muito quando se fala em políticas de igualdade de género, na realidade está-se a falar da realidade de mulheres e homens cis. Depois eu acho que são as questões LGBT. Estão a perceber o que eu quero dizer? Pelo menos é isso o que eu sinto quando estamos a falar do debate político e da própria investigação acadêmica. Há exceções, felizmente, há exceções, mas ainda não é normal. E por isso fico sempre na dúvida quando vejo estes… ou seja, acho que isto tem o seu valor, porque há de facto essa discrepância… e reparem, eu posso dizer que sou não binária, mas vocês olham para mim e se eu não vos dizer que são não binária, vocês iam me tratar como mulher. É normal, não é? Pronto, o género é aquilo que nós somos, mas inevitavelmente depende da forma como as pessoas nos tratam e como interagem connosco. Portanto, logicamente que essas coisas eventualmente também se aplicarão a mim na teoria, na prática, etcétera, mas enquanto pessoa não binária não me revejo minimamente neste tipo de investigação, percebem o que eu quero dizer? Ou seja, acho que ainda há muito para percorrer nesse sentido, de tornar as coisas não binárias nos vários campos de intervenção.

P2: Só vou intervir para concordar com a P1, porque é exatamente isso. Quando se ouve falar em igualdade de género, é sempre o masculino e o feminino. Temos que tratar a todos igual: o masculino e o feminino. Só que todos nós sabemos que hoje em dia existe… não é só masculino e feminino. Há não binário, há outras coisas e foca-se sempre… é mesmo para concordar com a P1. Todos os estudos e quando a gente ouve falar e quando acontece alguma coisa ou acontece alguma… e que o tema seja igualdade de género, é sempre binário, é sempre masculino e feminino. Não sei se é o caso de esta investigação, F2, queres dizer alguma coisa?

F2: Desta investigação, deste projeto? Eu acho que uma parte importante do projeto tem precisamente a ver com trazer estas questões para o projeto, porque é informação que, como estava dizer P1, ainda a investigação é pouca em termos científicos e acho que o valor da opinião que vocês estão a dar agora é precisamente isto: tipo trazer, num contexto, de um formato de levantamento de informação, enquadrado cientificamente e que faz parte de um projeto que também tem uma estrutura e que este tipo de contributos pode… e essa é outra questão também que acontece: em que, qual o contexto onde este tipo de discordâncias ganham força, são válidas para a comunidade científica, por exemplo. Então, acho que para nós, o que eu vejo também, o valor do projeto, deste projeto ALLINTERACT tem a ver com isso: que estamos a abrir o espaço… ou seja, estamos a reconhecer o espaço que outros tipos de expressões têm também na discussão sobre a ciência, que é um caminho ou um espaço que não tem sido dado por obvio ao longo da história. Vai por aí.

F1: Eu perguntaria, um bocadinho no correr desta conversa, qual seria o lugar da ciência e da comunicação da ciência e se quiserem da ligação que a ciência poderia fazer com o público geral, com todos os cidadãos e cidadãs, lá está também numa linguagem binária, qual é a ligação entre ciência e investigação científica e o público que deveria existir para que até essa transformação no uso da linguagem fosse mais possível e mais opreacionalizavel. Haveria alguma necessidade, percebem aí alguma… é melhor dizer alguma dificuldade de ultrapassagem deste binarismo da lingugagem, poque a ciência não se produz sobre esse binarismo, não questiona?

P1: Sem dúvida. Ou seja, eu acho que não há de ser esse o único fator lógico, acho que se fosse, seria mais fácil de resolver, mas acho que a ciência tem o seu papel a desempenhar ainda para mais… há bocadinho, P6 falou na questão da Medicina mesmo, da ciência, da Medicina e das ciências relacionadas com os campos da Medicina, muitos também é responsável por esse género de binarização do discurso. E nós sabemos que tem essa utilidade prática, não é?, mas uma das coisas que eu me lembro de aprender aí no doutoramento em estudos de género foi que mesmo, mesmo dentro de aquilo que nós consideramos géneros binários, há diferenças. Portanto, se calhar nem a própria Medicina precisa de cenas binárias. Portanto acho que a ciência, já remontando ao século 19, que tem tendência a usar este género de linguagem. Tem muito backtrack para fazer e tem muito para revisitar e para reaprender e, portanto, para reeducar também, sem dúvida. E acho que era um bom sítio para as pessoas como nós começarmos a ter voz e começarmos a poder também participar nestes estudos e depois destes estudos, a partir dai, estamos mais visíveis nas políticas públicas, nos debates políticos… pronto, na sociedade civil no geral, não é? Não sermos só aquele grupo que de vez em quando, pronto, vá lá, temos de dar uma atençãocita. Ou seja, por quê é que em Estudos de Género ou Igualdade de Género, quando falamos em Igualdade de Género não falamos em Igualdade de Géneros, não é? porque nós sabemos que há desigualdade entre homens e mulheres cis, sim, mas também sabemos que há desigualdades entre homens trans e homens cis, etcétera, etcétera. E isto são questões de género. No entanto, umas são abordadas como questões LGBT e outras são abordadas como questões de género. E eu acho que a academia faz muito isso ainda, infelizmente.

P2: Sobre a pergunta, a mim parece-me que obviamente esta questão da criação de um pronome neutro é uma questão política. No entanto, nós sabemos que a política encosta-se, debruça-se, deita-se praticamente em cima do que a ciência diz. No dia que a ciência, ao meu ver, no dia que ciência começar a usar um pronome neutro, a política, por arrasto, irá a acabar por fazer o mesmo. Quando deixar de haver, como disse a P1, principalmente na ciência médica esta diferenciação tão vincada, porque ao final a diferença não é assim tanta, quando estamos a falar de uma operação aos ouvidos… noutros campos será mais vincada, mas há coisas que não é tão vincada, quando a ciência começar a usar um pronome neutro ou uma forma neutra de género, a política e a sociedade por arrasto acabará por fazer o mesmo. É a minha opinião. Por isso a ciência tem um papel importante e fundamental ao meu ver.

F2: P5 queria falar alguma coisa, P5? Sim?

P5: Não, eu queria… porque eu acho assim… para além de a gente não ter muita pesquisa na academia sobre questões de linguagens neutras e etcétera, não há incentivos para isso e muitas vezes a gente é impedido de fazer isso, né? Por exemplo, eu já tive um projeto de pesquisa que não foi para frente, que eu queria pesquisar linguagem neutra, pronomes neutros, pronto descomunicar, que pronto, não foi para frente porque não tinha bibliografia suficiente sobre isso, porque não tinha pesquisa suficiente sobre isso. Então, como é que eu poderia realizar essa pesquisa. Assim, mas a partir desse princípio, isso nunca vai acontecer, né? Se ninguém nunca puder começar ou nunca puder ir para frente com este tipo de pesquisa, porque não tem, nunca vai ter. Quer dizer, é uma coisa que acaba em sim mesma. E é isso, a gente precisa do incentivo, a gente precisa ser permitido basicamente a falar sobre isso e muitas vezes não é. Como no meu caso.

F1: Mais alguém que tenha estado a pensar e queira dizer alguma coisa sobre este tópico.

P6: Eu.

F1: Força, força.

P6: Um pouco, um bocadinho ligado com o que P1 disse mais cedo, que é um pouco a terminologia que a ciência também utiliza, que aleja (afasta) a ciência das pessoas comuns. Eu o coloco assim, porque quando um tem um interesse nalgum tema científico, os termos que eles utilizam de pronto são muito rebuscados ou muito difíceis para compreender para a gente comum. Então um deixa de lado o texto e fica sem ler até o final. E um pouco também, respondendo à parte do vocabulário que a gente utiliza em geral também, li nas redes sociais também que a gente é a que faz o (a) linguagem. Não está feita por políticos, não está feita por gente da ciência. A gente comum, nós mesmos somos que vamos criando o nosso próprio vocabulário. Então também como diz P5, já não há investigações previas sobre questões de linguagem ou igualdade na linguagem. Já um tem que começar a fazer isso, perguntar algum professor ou já haverá algum tipo de livro que já haya (tenha) abarcado esse tema. Então, creio que com nós aceitar que se há só um homem e muitas mulheres e falam em feminino, um não tem por quê ficar enojado (zangado)… se me olvida en portugués esa palabra… zangado acho que é… Então como é que nós fazemos próprio isto da linguagem, investigar nós mesmos los términos neutros para poder já ter menos problemas com homens, com mulheres, com bi, com não cisgénero, no gender. Então, temos de ir apoyándonos nós mesmos com isso e esse tipo de investigação eu acho, ou focus group, eu espero que saquem isso a la luz para que siga acrescentando este tipo de situações.

P1: Se me permitem acrescentar um parêntesis muito rápido. Uma coisa que eu acho que poderia ajudar era termos as questões de género e as questões LGBT mais enquadradas com currículos. Portanto, começar logo nos currículos da universidade, porque nós temos esta ideia que isto são coisas novas e não são. Basta ir à literatura, o Byren já usava pronomes neutros para se referir a pessoas que visão dele seriam neutras ou que nós chamaríamos pessoas não binárias. Ou seja, há toda uma história das várias comunidades LGBT durante toda a história, Safo, etcétera, etcétera, dentro da Literatura, das Artes, de tudo, e que pura e simplesmente está fora dos currículos. E eu acho que já só termos contacto com esses testemunhos nos currículos, já nem digo a nível de liceu, mas pelo menos a nível universitário, já poderia começar a ser um incentivo… ou seja, eu acho que tanto do ponto de vista dos investigadores como do ponto de vista dos professores e dos próprios currículos das cadeiras, devia haver… como devia haver também para pessoas não brancas. Percebem o que eu quero dizer? Ou seja, acho que também ajudava muito conhecermos a nossa própria história porque muitas vezes as pessoas, dentro das várias comunidades, da comunidade LGBT… eu estou a dizer LGBT só *for short*, logicamente estou a pensar em toda a comunidade. Eu costumo usar a palavra *queer*, mas também não sei se sentem confortável tanto também… Conhecer a nossa própria história, a nossa própria cultura, não é, a nossa própria arte, a nossa própria literatura, acho que isso também poderia ajudar. E isso, a universidade poderia implementar isso com alguma facilidade, não é, em vez de dar-nos cinquenta poetas homens brancos, dava-nos vinte e dedicava… percebem o que eu quero dizer? Acho que também falta muito esse conhecimento da nossa própria história e da nossa própria gente, das nossas raízes e a academia também poderia ter um papel importante nisso.

P2: Mas P1, desculpa só interpelar-te, mas eu compreendo que isso seja fácil na língua inglesa, mas depois quando poes isso no Português ou nas línguas latinas, tu não tens sequer uma maneira neutra de tratar ninguém.

P1: Não, certo. A nível de linguagem, não. Estou de acordo contigo.

P2: Eu acho que o principal é tu não teres uma maneira neutra de tratar ninguém. Eu posso querer tratar as pessoas de uma forma neutra, mas não tenho como.

P1: É verdade.

P2: Em Português de Portugal ou… estás a perceber?

P1: Sim, sim.

P2: Em Português tu não tens uma maneira. Eu posso querer tratar de uma maneira neutra e eu não sei como fazê-lo porque não tenho maneira de…

P1: Sim, sim. Isso é verdade. E eu não quero dizer que não há formas de contornar isso porque não queria ser muito pessimista, mas acho que tens toda a razão.

P2: É dar toda uma volta no discurso, de um texto que teria três linhas e ia passar a ter cinquenta, porque tinha de fazer todo um…

P1. Sim, sim. E eu concordo plenamente contigo. Ou seja, essa questão da linguagem é muito complicada. Eu só estava a dizer que também acho que ajudaria começar a pensar nestas questões de forma mais generalizada se tivéssemos mais contacto com todas essas comunidades desde o início, porque depois nos ajuda a abrir o leque para outras questões. Nós aqui, por exemplo, fartamos de usar a Fernando Pessoa até a exaustão e temos ao António Boto, por exemplo, um poeta que marcou imensa literatura gay neste país e poucas pessoas falam de António Boto. Nós temos a um especialista sobre o António Boto, o professor Fernando Cascais, *that’s it!* E não se fala na escola, nada… pronto... Estão a ver o que eu quero dizer? Ou seja, eu acho que para haver esta sensibilização para a questão da linguagem, tinha primeiro então de haver uma socialização mais geral ainda sobre a vivência dessas pessoas. Ou seja… das pessoas, pelo menos eu também me incluo nessas pessoas, da nossa história, da nossa existência. Porque a partir do momento em que deixamos de ser conceitos e passamos a ser pessoas com cultura, com história, etcétera, talvez a abertura fosse maior. Espero eu, não sei. Mas mantém essa dificuldade do binário, aí de certeza.

P7: Eu posso falar? Eu acho que é muito legal isso que tu falas porque a gente percebe isso e com o que a gente estava falando antes, que esse movimento de debate, ele está muito… eu percebo e aí eu vou falar do lugar onde eu estou, que a área da educação e tudo mais, dentro da minha licenciatura quanto o mestrado. Eu… em nenhum momento a gente teve esses momentos… claro que isso vai depender muito da área, né, que tu estás estudando, então não necessariamente tu vais te topar com isso. Isso já demostra muito quanto que dentro da academia a gente está fazendo um passinho muito formiga. E aí eu acho que a gente percebe que existe muita gente por aí discutindo isso, né. A gente percebe esse movimento das redes muito forte, debatendo sobre essas questões. Talvez muitas vezes não são académicos que estão dentro de uma licenciatura ou estão dentro de um mestrado ou de um doutoramento, mas são pessoas que estão ali querendo debater isso de alguma forma, né, buscando as suas referências. E é bem giro ver as pessoas fazendo esse movimento, sabe, de buscar, de tentar buscar um conceito que vá (perde-se o som) para as próprias redes. E aí eu acho que é uma grande questão para a gente pensar sim, né, porque essa produção mais… por um público maior e com uma rapidez muito grande, muitas vezes das vezes… e aí me fala se eu estiver enganado, que talvez deve ter muitos estudos falando sobre isso, mas o que alcança mesmo a galerinha que tá lá em casa, querendo debater sobre isso porque talvez não se sente incluído dentro de essa linguagem, são essas pessoas que estão ali nas redes. Então como é que a gente vai compreender esse processo, né. Eu acho que é um debate que é interessante a gente tentar compreender como é que essa geração que está aí está discutindo isso, né. Eu acho que é o momento que academia precisa olhar e falar assim: “como é que essa galera está debatendo sobre isso? É a través do YouTube, a través do texto no Facebook?” Tá. Isso talvez as pessoas fiquem ainda meio confusas porque o que eu percebo é uma confusão generalizada, se as pessoas nem sabem o que é e já dizem assim: “nossa, mas isso não tem como e tudo”… porque é algo que dá um trabalho de repensar as estruturas e muitas as vezes tu estás no corre do dia a dia…

P1: P7 tienes o microfone desligado.

F1: Microfone desligado.

P7: Ay, meu Deus… alguém ligou… inferno. Então eu acho que a gente pensar um pouquinho quem é que está debatendo isso e como está debatendo, porque eu acho que isso também reverbera dentro dos estudos, sabe? É saber como as pessoas estão debatindo isso, quais são as armas, quais são as estruturas, o que é que é… em que plataformas. Eu acho que o bacana isso aqui, esse grupo, porque eu acho a tentar entender também como é que se configura isso, como é que as pessoas estão organizando esse conteúdo. Eu acho que é um caminho aí para se pensar.

F1: Deixem-me fazer, a propósito do que P7 estava a agora a dizer, que no fundo as redes sociais são uma grande plataforma de debate e que nelas surgem também novos protagonistas. A minha questão, que abro obviamente para todos, tem a ver com isto: até que ponto esses debates, esses protagonistas, vão ao encontro, vão à procura de sedimentar, de alicerçar aquilo estão a dizer nalguma coisa que tem base científica. Ou são debates que são tidos assim um pouco no ar, sem qualquer tipo de fundamento. Qual era o papel que a ciência poderia ter junto desses debates.

P1: Eu acho que depende muito sempre dos intervenientes. Se estivermos a falar… não sei, bom, não quero estar tipo a tirar *shade* a ninguém mas depende sempre dos intervenientes. Nós sabemos que há canais nas várias plataformas tipo YouTube, Instragram, etcétera, etcétera, que têm um cuidado de facto exímio de ir a procura de investigação, eles… há vezes em que eles próprios são investigadores ou estão ligados a essas áreas. Mas também sabemos que há pessoas que dão uma opinião como se fosse uma opinião informada, mas que não é uma opinião informada, mas que a fazem passar como opinião informada. E não sei muito bem o que a academia pode fazer em relação a isso, porque uma pessoa não pode, por exemplo simplesmente dizer a uma pessoa “cale-se, não sabe o que está a falar”. As coisas não funcionam assim, não é. Às vezes há vontade, mas não se pode fazer isso porque vivemos numa democracia, felizmente, e… só que… pronto, por isso é que eu estava a dizer que às vezes depende muito dos intervenientes. Já havia um bocadinho de tudo, não é. Não sei se a academia pode fazer muito mais. Talvez na questão tipo de *fact check*, *fact checking* e coisas do género… mas isso… quer dizer, quem é que vai fazer isso. E isso depois também levanta questões de trabalho, não é. Quer dizer, os investigadores, os professores trabalham que se fartam e ainda por cima têm que fazer *fact checking*… estão a perceber o que eu quero dizer? Ou seja, não sei, acho que depende sempre dos intervenientes. Aliás, às vezes há pessoas que pegam aí em coisas científicas e as interpretam mal, sem querer ou de propósito, e depois têm lá essa evidência e depois quase ninguém se dá o trabalho de ir ler o artigo como deve ser. Basta estar lá a referência… não sei.

P2: Eu acho que é como tu dizes, P1. É quase como os média na Internet, os média nas redes sociais. Tu vês às gordas e interpretas às gordas e achas que é uma coisa e depois tu fores ler o artigo completo ao final não é nada a ver com o que tava nas gordas. E é isso que tu dizes: é conforme os intervenientes, porque tu tens pessoas… já se viu tudo, não é, tu tens pessoas que ok no grupo, no live, eu não quero chamar sei lá um catedrático ou um professor que faz ali um bocado do que tu disseste, o *fact check*, e se sim ou se não, não há uma xxx científica que possa dizer isto, mas não há um professor em cada live, não há um professor em cada grupo de discussão, não é, não há um catedrático em cada um. Por isso, não sei o que é que a ciência pode fazer.

P1: Estava a ouvir aí um eco qualquer…

P2: Era aqui, a gente aqui de casa… o amigo da casa, o *Smarthome*.

F1: Vamos lá então.

F2: Ok. Obrigado pelas vossas partilhas neste tema e já estamos a entrar na última parte do focus e no último tema de hoje e que diz relação com… dêem-me só um segundo… Então, vão ao encontro um bocadinho do que vocês estavam a falar agora. “Acredita-se geralmente que o setor acadêmico não gera valor suficiente para a sociedade. No entanto, outros sustentam que que a investigação académica gera benefícios de muitas maneiras. Na Suécia, por exemplo, através da aplicação de uma nova versão do enquadramento do chamado ‘Sistema de Inovação Tecnológica’, à Nanotecnologia, os investigadores encontraram um forte padrão de impacto da ciência, incluindo uma comercialização substancial. Com tudo, os efeitos das atividades científicas é limitado por fatores exógenos à academia: a falta de conhecimento sobre riscos ambientais em saúde, por exemplo, as incertezas institucionais e de mercado, políticas mal coordenadas e acesso insuficiente ao capital relacionado com a inovação”

P1: Acho que isto é um problema particularmente difícil para as Humanidades e para as Ciências Sociais. Porque eu pelo menos enquanto… não sei se já sentiste isto F2 enquanto bolseiro, eu nos concursos em que já participei para tentar ter a bolsa, esta parte da comercialização e a parte do ser útil para a sociedade de uma maneira quantificável, está muito virada para as ciências, para as ciências exatas, e menos para as Ciências Sociais e menos para as Humanidades, como devem calcular. Ainda por mais agora em tempos de Covid, quem quer saber de livros e não sei que. E acho que isso pode ser um desafio muito grande para academia, toda a parte do mercado, não é, porque nós já sabemos também que a publicação, toda a parte da publicação é também muito, está tudo muito atrás do *paywalls*, o que dificulta o acesso à informação, etcétera, etcétera. Não sei bem se era isto o que o tema trazia a discussão.

F1: Não, isto é só um light motiv para a discussão. Ou seja, não temos de justificar, digamos assim, à letra o que ali está escrito para discutir…

F2: É uma provocação…

F1: No fundo, qual é o papel da Ciência para as nossas vidas e para as sociedades contemporâneas, que é isso o que está na base, se quisermos, deste pequeno tema, deste excerto. É precisamente qual é o qual deveria ser, qual é que poderia ser o papel da Ciência nas sociedades contemporâneas.

P1: Eu acho que volto um bocadinho àquela minha questão… depende dos intervenientes. Por exemplo, se tivermos um governo, como foi na Suécia, com a questão toda do Covid, que foi aquele desastre que nós sabemos que foi, eles usaram a ciência com base, que é aquela questão da imunidade de grupo que se usava, que se atingia se as pessoas ficarem todas doentes. Correu mal, mas não deixou de ser baseado em certas evidências científicas que até depois poderiam ter sido refutadas, mas essa parte da investigação se calhar ficou por rever ou foi revista e acharam que valia a pena o risco. Não sei. Eu, pessoalmente, e eu trabalho na área da Ciência, não é, não das Ciências Exatas, Deus me libre, mas dentro das ciências no geral. Lógico que eu acho que pode dar um contributo muito grande à sociedade, mas depende sempre, eu acho, de quem está a frente dessa sociedade, não é, porque nós também sabemos que a produção científica já foi utilizada para as maiores atrocidades da história da humanidade. Aquela questão das políticas mal coordenadas… Eu acho que há sempre esse potencial, depende sempre de quem o vai utilizar, não é, um bocado… mas acho que sim, acho que a Ciência tem esse potencial. Agora, acho que está muito limitada por várias coisas: esta questão que eles falam aqui da comercialização para mim é uma das principais e aqui em Portugal, para além disso, para além do processo de publicação da Ciência, também temos uma academia que também está muito envelhecida e isto, no curto prazo, vai gerar problemas grandes porque depois não abrem concursos, há departamentos inteiros a fechar ou a ficar sem professores e investigadores, portanto há toda uma… e isso claro que sim, a academia infelizmente não depende só dela, não é.

F1: Deixem-me só adequar um bocadinho mais o que foi a pergunta que tinha lançado há pouco: como é que a Ciência poderia ser mais útil para a sociedade e para as pessoas? Ou melhor, eu acrescentaria esta pergunta à anterior.

P7: Pode repetir, por favor?

F1: Como é que Ciência poderia ser mais útil para a sociedade em geral e para as pessoas, para a vida das pessoas?

P7: Eu tenho uma questão, que ela está muito dentro do meu processo formativo, assim. A gente tem que uma das bases da educação superior no Brasil que se ensina pesquisa e a extensão. E eu desde que eu entrei na universidade, eu sempre participei em projetos de extensão, que a possibilidade que a universidade dá uma… estabelecer um contacto, tem de fazer um trabalho conjunto com a comunidade, como se fosse uma forma de devolver para a universidade do Brasil, que é a universidade pública de verdade, a possibilidade de eu ter um contacto com a comunidade de devolver aquilo que eu recebo enquanto estudante dentro de um curso superior, né. Então, eu me lembro de ter passado por vários cursos, por vários projetos de Extensão aonde a gente percebia o quanto que, aquilo que nós estávamos fazendo dentro de áreas que não eram áreas muito bem vistas, né, no sentido de questões financeiras, que vai gerar lucro ou que seja, mercadoria, em fim, mas a gente percebia o quanto que isso conseguia alcançar às pessoas e fazer esse processo da gente tentar um fomento de alguma área da sociedade que necessitasse, por exemplo, de um aporte… eu acho de uma ajuda e de alguma questão social ali. Então, por exemplo, participei de projetos que eram voltados para os idosos, crianças em escolas e tudo isso foi validando todo o meu percurso na possibilidade de entender esse papel da universidade dentro de comunidades e tudo mais. Eu acredito muito que a academia eu acho que chega um momento… por isso acho a Extensão tão linda, que é a possibilidade de você sair de aquele universo que você está dentro de um curso específico. E você ir, de facto, para um local onde possam surgir ideias, onde você possa pensar estratégias, porque de facto você sai de uma lógica “eu estou estudando sobre um tema específico, eu estou estudando uma realidade específica, mas não tenho como ter contacto com ela. E se eu não tenho contacto é difícil ficar só naquela questão muito teórica de se eu não vou para a questão mais prática, não é, se eu não percebo como é que isso vai se organizando, como é que a minha formação ou como é que o meu percurso ele pode ajudar esse espaço, essa área específica dentro da sociedade. Então eu acredito muito nessa possibilidade na academia. E da gente conseguir alcançar comunidade dentro de esse processo. Se eu estou estudando uma licenciatura, se eu estou dentro de um mestrado, como é que eu vou ter esse contacto, como é que isso vai reverberar tanto em mim quanto naquela comunidade. E aí a gente está pensando de outra forma, né, a gente está pensando em gerar um valor, que às vezes não nem um valor económico, que também pode ser económico, né, dependendo da área onde você atua. Eu acredito muito nessa possibilidade assim, da gente sair dessa bolha e da gente ter contacto com aquele objeto que a gente traz às vezes baixo do braço, né, um livrinho debaixo do braço, e vai ver o objeto mesmo ali, latente naquele espaço que a gente tentou reconhecer e vê chegar.

F1: Mais alguém?

P5: Posso falar?

P4: Eu acho que…

P5: Ah, vai, vai…

P4: Posso? Falas tu? Como é que é?

F1: Ok, P4, siga.

P4: Eu acho que também faz parte do… eu sei, e já foi dito aqui anteriormente, que as universidades têm muito trabalho, que os investigadores também, mas também faz parte do papel de alguém que estuda partilhar essa formação não só em meios acadêmicos, mas também para a população em geral, para todo tipo de pessoas. Eu não sei como é que isso se faz nem de que forma é que isso se pensa, mas eu penso que é importante a nível de… ou seja, quando só partilha no meio académico usa-se uma determinada terminologia que é difícil de entender o contexto, etcétera. Mas também o papel de quem trabalha nos assuntos talvez transmitir essa formação ao público em geral. Eu sei que é um problema e estava só a levantar a questão, porque eu também não sei como é que se poderá encontrar forma de tornar compatível a academia e tudo o resto. E só isso.

F1: Compatível ou que os conteúdos sejas percetíveis…

P4: Compatibilidade num sentido em que os estudos sejam percetíveis.

F1: P5, penso que queria dizer qualquer coisa também há pouco.

P5. Não, P4 falou basicamente um pouco do que eu ia falar, porque acho que a questão da Ciência não é em sim a utilidade ou não, mas como isso chega ou não às pessoas. A questão é que não chegue. E na verdade, a Internet e as redes sociais ajudam muito a chegar. Eu acho que isso tem sido muito importante e eu acho que apesar… pegando um poquinho o que a gente já falou antes, tem um risco das *fake news*, tem todo o risco de essa informação chegar de uma forma talvez não mais completa e não mais… mas ela chega de alguma forma. E mesmo que ela chegue com *fake news*, isso vai ser debatido. E acho que só disso poder ser debatido isso já é muito importante, porque enquanto uma coisa nem sai da academia alguns anos atrás, agora chega de alguma forma, mesmo que um pouco distorcida. Eu acho que é um caminho muito importante de entrar e não é porque tem os riscos todos que a Internet tem e desistir desse caminho. Acho que não, acho que é o caminho que propiamente vai atingir mais pessoas, para além do… P7, por exemplo, falou das questões de programas de Extensão e de você estar trabalhando com as comunidades e com as pessoas fora da academia, isso é muito importante e isso e muito local. Se você pensar, Internet abrange mais pessoas e eu acho que são duas possibilidades que faz a Ciência ter essa capacidade de ser compreendida e absorvida por pessoas que não estão dentro da academia. E eu acho que aí é que está a questão. Não é que seja útil o quão e que ela pode ser útil para a sociedade, como é que ela chega ou não chega… como é que a gente comunica Ciência para que ela seja percetível, para que ela seja confiável e todas essas outras questões. Eu acho que é mais por esse caminho.

P2: Para mim, basicamente, é aquilo que foi dito, e que a Ciência precisa chegar cada vez mais ao cidadão comum, só que depois para a Ciência chegar ao cidadão comum, obviamente há que usar as plataformas e ver as possibilidades, Instagram, o Facebook, etcétera, etcétera, etcétera, no entanto há dois pontos para mim que são essenciais, que é: a linguagem, como chega, tem que ser uma linguagem acessível ao cidadão comum. Nem todos são licenciados nem… e talvez o perigo seja esse, o perigo da divulgação das *fake news*, como todos sabemos, é num público menos letrado, se se pode dizer assim. Se calhar tem que se saber como chegar, de que modo é que… que discurso é que se usa, e pegando aquilo que P1 disse quase no início, que era as… a academia, as páginas dessas redes sociais diretamente ligadas à academia, serem verificadas. Nós sabemos que aquela página, que aquele grupo de discussão, é um grupo verificado por uma pessoa… não precisa de ser pela universidade, mas é verificada pelo… pelo pesquisador… não sei se me estou a fazer entender, não é. Eu acho que esses pontos são fundamentais. O discurso, como chega ao cidadão e haver uma maneira do cidadão saber que, lá estou eu, não é, utilizar o binário… cidadão em geral, peço desculpas… tem que haver uma maneira do discurso chegar fácil, não desleixado, mas fácil, e verificado. E que o cidadão possa ter a certeza que está a ler uma coisa credível.

F1: Certificação… mas alguém? Alguém tem alguma coisa a dizer? P6, P3? Que ainda não tenha dito.

P6: Eu acho que com isso de… o acercamento (aproximação) da gente para a Ciência, tem muitas responsabilidades: responsabilidades governamentais, responsabilidades dos meios de comunicação, responsabilidades de nós mesmos… Então, porque na televisão, por exemplo, ou na rádio, não tem programas agora de Ciência, só tem programas ou películas (filmes) para entretener (entreter) a toda a gente e uno (um) fica com muito desconhecimento de muitos temas que estão acontecendo agora, sobretudo com o Coronavirus. Da academia, que já se esteve falando disso, a terminologia que eles utilizam para as suas investigações de academia, que não sei se cá em Portugal existe, mas no Chile estavam começando uns programas para acercar (aproximar) os meninos e às meninas para a Ciência, da primeira educação. É como a sociedade completa, seja ela governamental, académica e cidadania em geral, como logramos (conseguimos) fazer esta conexão para que a Ciência seja mais acessível para todo mundo, que as investigações que tem não sejam mais importantes aquelas investigações que geram mais dinheiro para empresas ou para ou governos ou para grandes grupos económicos, e que investigações que ajudem à comunidade diretamente como… não sei, hortas ou energia sustentável, etcétera, etcétera, podem… pudieram (puderem) ter a oportunidade de chegar mais com apoio económico para as sociedades em geral. Isso.

F1: Mais alguém gostaria de acrescentar alguma coisa?

P3: Eu na verdade… concordo… idealmente acessível para toda a gente, com o entendimento de toda a gente. Acho que a melhor forma de isso chegar a todos e de informar. E obviamente o ideal seria ser verificado. É capaz de ser um pouco difícil, mas acho que o ideal seria ser verificado e assim ser mais ouvido também.

F1: Ok, obrigado. Estamos aqui com um bocadinho de dificuldade técnicas em perceber. Deixe-me só confirmar que o ponto, pelo menos o que eu consegui interpretar, é a questão da verificação, não é? Ser verificável para que seja mais confiante e também possa chegar assim de uma forma mais segura a mais pessoas. É isso?

P3: Sim, e ser também acessível para toda a gente.

F1: Acessível.

P3: Não ser só para pessoas licenciadas o com termos ou vocabulário… pronto.

F1: Mais alargado, para mais pessoas também.

P3: Sim.

F1: Ok. É que o som não está muito bom e assim agora podemos certificar o que tinha dito. Mais alguém gostaria de acrescentar, última ronda? O tempo já vai largo. Também não me quero estar aqui a rouba-lhes muito mais tempo. É só para saber se querem fazer mais um acrescento de informação, alguma coisa que queiram dizer mais? A noite já começa a entrar portanto, assim sendo, resta-me agradecer imenso vossa participação, vosso empenho, as vossas ideias. Elas são fundamentais para este projeto e aqui já saíram várias pistas e várias preocupações que esse também é o objetivo destes Focus Group, que é captar as preocupações das pessoas relativamente à Ciência, à forma como a Ciência chega ou não chega aos cidadãos e às pessoas. E, portanto, resta-me agradecer mais uma vez a vossa disponibilidade de participação. E obviamente a qualidade e a simpatia da conversa. Muito obrigado. F2?

F2: Sim, obrigado por terem aceite o convite, muito obrigado pelas vossas partilhas. Foi muito interessante. Só mais um lembrete, o projeto… foi primeiro Focus Group e vocês fazem parte do Grupo Experimental, isso quer dizer que ainda não está muito bem definido, porque temos de ser informados sobre isso, mas eventualmente vocês vão ser expostos e expostas a incentivos ou algum tipo de informação ao longo do ano. E eventualmente teremos de fazer um segundo Focus Group daqui a provavelmente 2022, para ver ser aquelas ações tiveram algum efeito ou não, porque isso vai ser muito interessante para saber se as ações que foram pensadas para construir as pontes entre a cidadania e a Ciência estão a ser efetivas ou não. Portanto, isso vai ser daqui a algum tempo, mas eu vou estar em contacto com vocês e se houver alguma publicação, entretanto sobre o que foi falado hoje ou daqui alguns meses, eu também entrarei em contacto com vocês para partilhar aquela informação. Está bem? É isso. Pela minha parte, muito obrigado, um grande abraço e até muito breve.

### Women (including vulnerable women)

**Facilitator:** Yeah, I think it's recording now. In terms of methodology, we'll try to have our discussion based on the egalitarian dialogue, and the objective is for everyone to have an opportunity to answer every question because your individual opinions and experiences are important Before we start, would you like to introduce yourself, briefly? I can start with myself. My name is XXX. I'm a senior research fellow in the Ratcliff Department of Medicine, based in the John Radcliffe Hospital on Level seven. This focus group is conducted as part of ALLINTERACT project that tries to find ways to engage citizens in science in various ways as public contributors, participants and also citizen scientists.

**Participant 1:** Hi, I myself and my mom will be joining. I'm going to be interpreting for her. I know this is a women's event, so please, I'm not the I'm. I don't see me as a male. I mean, I'm just here as a voice for my mom, for translation. And also so nice to see Participant 7, Participant 10, Participant 5, Georgina, and Participant 7. I know these people in the group and the other people that I don't know. It's lovely to see also. I'm just waiting for my mom. She's just finishing her prayers off. It will be another five minutes and the children will come and join us. But it's so nice to see new faces and old faces. Hi, Participant 5. Lovely to see you. Good to see you. Good to see everybody else.

**Facilitator:** Thank you. And can I just ask everyone else to introduce themselves? Maybe starting with you, Georgina.

**Participant 2:** Hello. I'm thinking about this. I've retired. I live in Buckinghamshire and I do quite a lot of talking to various organizations.

**Facilitator:** Thank you, Participant 2

**Participant 3:** Hi, everyone, I'm Participant 3. I work at the university in Oxford, Oxford, Brookes, so I might be able to point some insights here into students, even though I have graduated myself. And other than that in my spare time, I volunteer a bit for Cancer Research UK and a couple of brain tumour charities on plastic.

**Facilitator:** Thank you, Participant 3. And Participant 4.

**Participant 4:** Hi, I'm a student at the University of Oxford, I'm studying Computer science and philosophy.

**Facilitator:** And Participant 5 please.

**Participant 5:** Hi, everybody. Like Participant 2, I do a lot of PPE, especially Oxford Royal Marsden, Macmillan, Cancer Research UK. And I live in Wimbledon and thanks for having me.

**Facilitator:** Oh, fantastic. Thank you, Participant 5. Participant 6.

**Participant 6:** Hi, I'm Participant 6. I live in Oxfordshire. I'm not working at the moment, but I do volunteering work with the Royal Society of Chemistry on the Education Outreach.

**Facilitator:** Fantastic. Thank you, Participant 6.

**Participant 7:** Hello, I'm Participant 7. I I'm involved in a lot of P.E.I. work and have been for about 10 years in particular. I do a lot of research things as a lay participant. All right, thank you. Now I live in Coventry.

**Participant 8:** I'm also in the West Midlands, I'm at my home home in Birmingham, so I'm a researcher at the University of Oxford, I do a lot of work on mental health. I also run a spin out that focuses on British Indians, and we do a lot of engagement there as well.

**Facilitator:** Yeah. Thank you, Participant 8 and Participant 9.

**Participant 9:** I am also involved in PPE work since 2016, I've been involved in all sorts of different projects and I am also involved in training and education, mainly the as a neurodiverse person. It's lovely to see you. Well, thank you.

**Facilitator:** Thank you and Participant 10.

**Participant 10:** Oh, hi. I do talk a lot, so do shut me up, it did exactly the right did exactly the right thing to do that. My name is XXX. I'm self-employed as a mental health user consultant and I live in Worcester, so I'm sort of in the West Midlands. Well, I am in the West Midlands. West Worcester doesn't like being in the West Midlands. So and I've lived with a diagnosis of bipolar since 1970. I've been treated in the old asylum system, so I am older and I have a lot to say about patient public involvement generally in research.

**Facilitator:** Thank you, Participant 10. It looks like everyone has had the chance to introduce themselves. So shall we go straight to the questions? And there are five broad questions today and the objective is try to get everyone's input and opinion. And if people feel that they can answer straight away, please do. I'm saying those who need some time to to gather their thoughts. You could just wait until you have gathered your thoughts and contribute to the discussion. But as I mentioned, it would be fantastic if everyone could contribute their opinions and experiences. So the first question is how do you think citizens benefit from scientific research? It is a general question, and more specifically, it would be very valuable to hear examples based on your personal experience. For example, some of you might be patient advocates or members of a patient group, and so you can discuss new scientific research with your colleagues and friends. You may share some information on social media or you attend talks given by. A scientist or or fellow members of the public, any. Any instances of how you think citizens benefit from scientific research and your personal examples of how you benefited from scientific research are particularly welcome.

**Participant 1:** So of what I was going to recount in, I was just going to say, as you know, I'm going to be translating interpretive for my mom. Some views will be my mom's views. She has taken part as a participant in some scientific health research. So she does have a basic understanding of it. Some points I will share with you, as in generic BME from my sisters and cousins, sisters and what I hear. So it just so that you got a bit more perspective. We're not going to be on camera or we're not going to be we're not going to be all this unmuted because I don't want to disturb the group. So like, you know, for example, probably just ask the question, so I will be muted. I'll talk to my mom. She will tell me her bits. And then when we want to speak, we'll raise our hand and then we'll come on camera. Is that OK with the group? Because I don't want to disturb no one today. Thank you. That's okay.

**Facilitator:** That's fantastic. Thank you. And I have two hands raised Participant 5 and Participant 7.

**Participant 5:** Yeah, I want to start by saying I benefited as a citizen from chemotherapy. I think some other people have gone before me and sat on clinical trials and especially from a black African community. Sometimes I'm not sure how thorough the chemotherapy are because I frequently go to Nigeria and I see reoccurrence of people. Sometimes they die because I'm not sure if we're using the right chemotherapy for the population, for black, for whites. So I campaigned a lot and I've been talking about it, and I'm talking to Cochran for evidence base to really gather this together and see, you know, because we don't take part in clinical trials. I'm not sure if we all benefit from the same treatment, if you see what I mean. So and I shout out a lot about that. I talk about it a lot. I put it on social media, I put it on WhatsApp Group for all my other African compatriots.

**Facilitator:** All right, thank you. It's actually a very important point because we know in medical research there are gender differences and also differences when it comes to race and ethnicity in how people manifest certain conditions and how they respond to certain treatments. And generally, these dimensions are under-researched currently. So thank you so much for bringing this important perspective. And Participant 7,

**Participant 3:** Would you like? I just wanted to ask a question to clarify is it do you want our experience or knowledge as participants in trials or as PPI people or both?

**Facilitator:** Both. And even more, as a layperson.

**Participant 3:** Well, I think there's something wrong with my microphone. Can you hear me? Yeah. Oh, there's something wrong here, anyway.

**Participant 1:** I mean, yeah, there's nothing wrong with your microphone. Can I make a humble request by speaking, please mute yourselves because we're getting the echoes back from Participant 10 and Participant 6. So I say, if you're not speaking, please mute yourselves.

**Participant 3:** Thank you. Thank you, honey. I had a I had a friend and about, Oh, it's coming up to the anniversary of her death. So it's about eight years ago she was diagnosed with stage four ovarian cancer. And I, I thought you'd barely have a month to live. Ovarian cancer is very hard to treat it with very advanced. She had a hysterectomy. She had chemotherapy, which did not make a real because people think chemo always makes you real, but it doesn't always. And she was able to live a normal life go on holiday. I do everything for just over seven years. And I think that was because she took part in clinical trials. And also so there's somebody called Clive James, who's an Australian sort of commentator, what you call a journalist. And he had leukemia and he lasted a good long time, and he put that down to taking part in clinical trials. There's also something that when they've done research, even people in control. Do better if they take part in clinical trials. And and I know that I wasn't personally involved in this, but I remember attending something at Oxford and one of the people who was at this event said that they were testing a drug that for people mental health problems, and they were hoping that it would prevent suicide. But at the end of it, nobody had committed suicide. Not even the people in the control group. But what it was. Everybody got a lot of attention. So like nurses, research nurses were bringing people up and how are you every week and all this kind of thing? So arguably, people were getting the kind of attention that people normally get if they have a kind of better life. So it's probably more that than anything to do with any drugs they had. So that's my contribution.

**Participant 1:** Sorry, I was going to come in when after Participant 2 and Participant 5, I think I'll raise my hand so.

**Participant 3:** But I'm the patient who benefits from research. I've had rheumatoid arthritis since 1994, and it took 13 years to get the the illness under control. I kept asking if I could go on a medical trial and nobody took up my offer and the medications I eventually got that got the disease under control were actually being trialled at the time that I was asking, just if you live in an area that isn't interested in research, you are hugely disadvantaged and you don't have access to, you know, whatever's going on. And if you look back to the nineties, you couldn't google it and find out things for yourself. So at least things were a little bit easier now. And for that reason, I'm on a project with Participant 5, which is about trying to make trials available to everybody through the use of mega data. And the other thing I'd just like to mention, I worry that people don't sign up to things because they're suspicious of Big Pharma. If it wasn't for Big Pharma, where would our medicines come from? And that's the point we've got to do something to counteract some of the mistrust, which is often about big pharma because, you know, governments aren't going to pay for the research and carry the losses that happen more often than the successes. And I'd like to see us doing more to explain what's in it for everybody and how it gets funded and how it wouldn't exist if it wasn't funded. Thank you.

**Facilitator:** Thank you. Participant 3, would you like to go next?

**Participant 3:** I think the big one recently that I think everyone knows if they're not already vaccinate themselves is the COVID 19 pandemic and the great research that was done into vaccinating people and also coming up with different treatments very quickly for this horrible disease that was spreading very fast. I was also in the first cohort that received the cervical cancer vaccine, and the research has just come back from that, saying that it's worked incredibly well in reducing cervical cancer for young girls. So I think that vaccines is a big way that most people will have had a vaccine for something in their lives and will benefit from the prevention from different diseases that occur.

**Facilitator:** Thank you, Participant 3 and Participant 1, you mentioned that your mother would like to speak next.

**Participant 1:** Yes, we do. I would just talk to my mom and try to explain to her about reason I gave examples of when she was taking part and what she said is that sometimes there is a there is when you haven't got someone to explain to you. Like in her scenario, she had a family member like myself. But she said if prior to old experience, she recalls where the nurse at the GP surgery, the doctor would mention something around research, but she would get very paranoid and get very worried. And there was some kind of a this kind of a myth in the South Asian Pakistani community where they say, don't go for a trial, they just use as a dogs and cats and you get a lot of side effects. And this happened and that happened. And she said he used to be very afraid in the past where if somebody said to her, Do you want to take part in this research? She would just say no and completely stick with the like an old miss. And oh, now that she's had exposure and she realized how much care. And because I think my mom, because she's elderly, you give her a bit of love and attention. She thinks she's a queen bee. So when she's been done a couple of research projects, she's been given that attentive support by explaining to her, talking to her, reassuring her. She feels quite confident in the system, but that's because she said she's been exposed to it. But she also thinks about her sisters and cousins who are not been exposed and how they would kind of still have reservations. And what she said is we need more bilingual, either through audio or visual or written awareness of research, importance of reach such and how researchers make sure that it's safe and effective as much as possible. And she said, then there will be more engagement from people from her community. Thank you.

**Facilitator:** Thank you, Participant 1. That's very important, and Participant 10 and Participant 4 next. Participant 10, would you like to share with us? We can't hear you, I'm afraid.

**Participant 1:** Participant 10, you are muted.

**Participant 10:** I'm not. No, no, no, no. I'm just amazed at all the positivity that's come out here because I think there is the fact that research is carried out is really good and can be positive. But from my perspective, it's often the results are not disseminated to the people who are the participants and therefore you don't know what's happened. And I also is interested to see all the positive stuff about if you're having in a trial, you get better because you have the treatment you have not just the treatment, the psychological treatment as well. And I mean, in mental health, it is my particular field and I'd love to know what Participant 7 says as well is about. For example, ECT electroconvulsive therapy is an old treatment and it hasn't had any new research. I know some being done now, but it corrupts the brain and it's actually quite challenging. And there's lots of the the medication has very serious side effects which affect your life, which aren't sufficiently demonstrated to the participants or not the patients generally. It's basically it's the medical model versus the bio psychosocial model, and I think it needs to be incorporated as a holistic research plan. In my opinion, that's probably enough for now.

**Facilitator:** Thank you, Participant 10. Participant 4, you have raised your hand.

**Participant 4:** Hi, yeah, so this might be a slightly different perspective, but when I'm writing essays, for example, will often draw on sort of current or previous scientific research. So for example, today we were looking at experiments about neural oscillations and sort of consciousness and different experiments on the brain and on the visual system. And I've used those to kind of help my essays and to give evidence for when I'm trying to make an argument.

**Facilitator:** Thank you, Participant 4. Participant 6.

**Participant 6:** So like Participant 4, I'm probably going to come at it from a slightly different perspective because my background is food science, and so from that perspective, I think senior citizens benefit from research in that field, not least in the guidance that we get on nutrition. So the Eat World Plate is based on is based on research, but also in the world of reformulation from high salt, high fat, high sugar foods where research is being carried out to reduce those and introduce different ingredients to manage that and just basically the development of foods that hit the supermarket shelves, that's that's all based on scientific research. So that's my contribution.

**Facilitator:** Thank you, Participant 8, next.

**Participant 8:** I, I've got like maybe three perspectives to give. So my younger brother has severe learning difficulties and autism, and we definitely see the value in research in just like understanding what support he can get access to different therapies. And even more recently, he was diagnosed with anxiety and looking at different treatments and like therapy resources, specifically for people with learning difficulties and autism. Having that research has been hugely beneficial, although there's always more to be done. And I feel like with having like living with someone on the spectrum, it feels like you're constantly in an experiment and trying to figure out what works for him. And it's the same with everyone, and you're always like one frustrated half the time, but then also, like, eternally grateful to everyone who's been in that path before you and who has set that, you know, added to that and and a lot of that support does come from science and also the community and building that infrastructure. And I think together they're hugely beneficial and that's been incredible for him. The other thing I want to talk about as well is in my research, I do work on mental health across low and middle income countries, and I think scientific research is great. But a lot of it has to look at like capacity building and collaboration. And it's it's less about working on people, especially when you're looking at Western scientific models. And it is moving more towards like the holistic models and looking at what people are saying and what people want. And I think that's really beneficial because it means you can actually get scientific data on what people want and what's appropriate for them and including them in the process, which is incredible. And I think that has huge benefits. And then the third perspective I just want to speak about briefly is so I also have a think tank on British Indians. And with the COVID vaccine, there was a huge kind of, you know, reaction in the community that, like black and ethnic minority community members, don't want to take the vaccine x y z. And we did a lot of work into that, and a component of that is just trust, you know, historically, medicine hasn't always treated us the same as it's treated Caucasian counterparts, just different side effects and getting involved and also, yeah, having a lack of information. And and again, that builds in with the trust. But having that scientific data, especially on fertility and the impacts that when is it safe to have it? And that transparency in the scientific data really helped because it meant we could have those conversations and put people at ease. And that definitely helped with allowing more women to take the vaccine.

**Facilitator:** Thank you, Participant 8, that's fantastic, and Participant 9, you have raised your hand.

**Participant 9:** I was listening to everyone talk, and I was also trying to grasp the question because it was a little bit ambiguous. And I am autistic myself, so my heart was kind of racing because inevitably when I'm in a group, there's always a family member or someone who has someone and I get nervous not knowing what I'm going to hear because often the experience I have is that people talk for us and not with us. And this is what led me to join the research community in 2016 because I thought, how can I change things because that the scientific community and the the general population have so many misconceptions about autism and learning disabilities. But anyway, I think that the main thing that is. Really relevant is is thinking about the health literacy. I think that's really important. And that's something people can benefit from. Research is is the health literacy, but also I think we need to build on the trust. And I think there's such a lack of trust. It's like people need to know that they can trust the scientific community. And I think as PPI, we kind of try to bridge that in the sense that we don't know it all, but we can. We can be that that force with our communities, with our families, et cetera. So I think it's important that it's that research is ethically sound. I think that's really important. I think it's important to develop plans and identify people who are relevant to the to whatever's being looked at and studied and researched and allocating appropriate costs as well, because often that's forgotten about and managing expectations. But I do think that someone has already spoken about the social and medical model of disability, and I think that's so important. And so we need to talk more about it because I am seen as a disease and I'm not a disease. My community is not a disease. We're here when neurodiverse and we are just as important as anyone else. So that's my say. Thank you.

**Facilitator:** Thank you, Participant 9, for your important contribution, it looks like everyone has had an opportunity to to answer this question. Can I just ask a brief additional question about whether you are aware of any gender differences or race or ethnic differences or differences in terms of the level of education, of how people benefit from scientific research or any barriers of this type that prevent people from benefiting from scientific research?

**Participant 5:** Yeah, I can answer that to go. Firstly, I would say it's not nothing to do with education. I think it's the trust, the mistrust, because I said I come from Africa, Nigeria and Pfizer was in Nigeria. Once that had a lot of damage to a clinical trial, they were doing even way before I knew anything about clinical trials. So immediately you mentioned clinical trial to an African. The first thing they tell you is, Oh, they're using us as guinea pig. And Pfizer maybe deliberately went to the part of Nigeria. That's, you know, maybe they weren't educated well enough to speak out. They finally paid out. The article was in the paper, and I'm happy to share that. If so, it's just that mistrust. It's not that we do not want to do like everybody. Every black person that doesn't want the COVID test doesn't. They're not, not. They're educated. My daughter is educated. She's deputy head of the year. She had a degree. She had a master. But it's just that mistrust of, you know what? The people on your clinical trials are always the same old, same old, same old people. So it's not that we don't we are not educated enough. Of course we educate, but we just don't trust you. We don't trust what you're doing with us, and we need a lot of education to say, Hey, this is, I think I quote from what Participant 2 said, what they need for everybody, not just the few white people, the few CAB people, the Ds and the Es of life are nowhere to be found.

**Participant 5:** It's just if you know, you know, if you don't know it's who you know, sometimes you know, and sometimes if you don't encourage oncologists, they will just pass it by you. So you have to be empowered to actually cross the pathway of medical treatment you need to know. So you go in and tell them that I want to be part of this. They don't automatically tell you. But when you are empowered and you know, I'm not an illiterate, I speak four or five languages, so I know what I'm doing. But they don't run it past you. They run it past the white people. It's easy. Or do you want to take part in this? Do you want? They don't ask me. I've had ovarian cancer. I've had breast cancer. Nobody have asked me, Do you want to take part in any clinical trial? So it's not a matter of education, it's a matter of, oh gosh, leave those black people alone, let's just do it within us. But they need to rebuild that trust.

**Facilitator:** Thank you, Participant 5. It's very powerful what you are saying, there are quite a few raised hands here, but I'm not sure which are old hands in which a new one. So can I just invite whoever else wants to to contribute?

**Participant 7:** You mentioned, I think you mentioned barriers, Facilitator, and I'll be very honest here. I've been involved in in research and PPI for over 10 years now, and I know the NIHR has got this paper on diversity encouraging diversity. It's very I think it's called includ. And it's not just ethnic minorities, it's closed people of different class, caste, everything you could ever think of. Now the problem is that you already have a critical mass of a certain type of person, which is almost exclusively white. This group isn't. I'm excluded, but historically exclusively white, middle class, largely female, you know, often professional. And there's a lot of grandstanding goes on. A lot of, oh yes, you know, shoehorning in the fact that it used to be a solicitor or a doctor. And I did this and I did that. And you have to that is a barrier to anybody who joined now because if you go out and drag some people off the street and you know what it's like othering, I'm the people who do. This may not be othering, but that's the effect. And I was a facilitator on the expert patient programme, and we have this thing where we would say we're here to look at outcomes. We're not here to talk about our conditions and we would draw model that, so I'd say I'm Participant 7, and I have two long term conditions that make me feel fearful and frustrated, and everybody would go round so people weren't allowed to say, you know, go on for two hours about their back pain or whatever. Now you'd have to bring in something like that whereby people, I mean, even in terms of the the ice breakers, I mean, I was at something the other day, you don't know where this is. And the chair, in a desperate attempt to get out of there, said, Oh, it's a nice break. We'll all say something interesting about ourselves. One interesting thing, and the first person says, Well, I don't think there's anything interesting about me, except I should be in America today. I'd got a holiday booked and it's been cancelled. Here we go. Somebody else says, Oh, I, I like Cornwall, where people don't realize I go there every six weeks. I thought, Here we go again. This has got to stop it. I don't care who's a solicitor and who's a doctor, what you did before. It may be that I'm nuts and that people who have scientific backgrounds or it may be relevant, but this kind of grandstanding is a barrier. And secondly, what Participant 5 was saying about people's fear of research, it's well funded. I mean, there is something recently the alleged report on vaginal mesh and people being women. Women have been complaining for years and they just ignored it. And women, some women are further in a terrible mess now. They'll never get those things out of them and people complain. It's not like they didn't know. And the other two things I think Baroness Campbell looked into was three treatments for epilepsy with women who wanted to get pregnant, which caused birth defects and pregnancy tests, which caused birth defects. The recommendation was to set up a commission on this kind of thing. It's been completely ignored. There are things where, like the contraceptive pill, I think, was tested on South American poor South American women, so that a funny thing happened. Who cares about them? Keep a nice white women, you know, free of any side effects. So I'm not surprised that that people are mistrustful. You know, I don't think these silly, ignorant people and they're worried about, you know, the government spying on these ridiculous people have good reason to to be cautious about research. I've said my piece. That's it. Yeah.

**Facilitator:** Thank you, Participant 7. And Participant 10, you have your hand raised. We can't hear you, I'm afraid.

**Participant 10:** Okay. Yes, it's really interesting this I was thinking about the point about education and then Participant 7's point about which again was linked to trust and what I think the trouble is that the criteria for people to be included in what you call clinical trials are very excluding of pregnant women, of black women or or, as they put it. They don't exclude black people. They're not allowed to do that. But they say whose first language is not English, which an awful lot of black people. The first language is not English, which is a very discriminatory thing because, you know, it's assuming that if English is not your first language, you will not understand the consent process and that sort of thing. And it's very ajuste as well, because I mean, obviously, some treatments are a specific, but most of them aren't, and they have cut off points of young people children don't have because they're thought to be too complicated to get consent and the same with older people, particularly with dementia. Again, they're excluded because it's difficult to get consent, and the researchers very much need to be able to support anybody to take part in there because otherwise, as Delta said, it wouldn't be be applicable to everybody. And it isn't, which is a lot of the trouble with the older trials. The research evidence that we rely on is rubbish, a lot of it because they didn't ask how how it felt to take the pill or the treatment. These days, it's a bit better because there are quite often qualitative elements to clinical trials, but that's fairly recent, and I think it's due to the patient public involvement movement that that's come about. So, et cetera, et cetera.

**Facilitator:** Thank you, Participant 10. Participant 9, you have your hand raised. Or is it an old hand?

**Participant 9:** It was I lowered it, and then inadvertently, I must have raised it, but I sort of typed in there that listening to what is it, Participant 10? I can't see the names. I'm so sorry I was saying that. Yeah, in regards to autistic people, it is like you turn 18. And I think researchers think we just disappear into thin air and services in the UK because everything sort of stops to exist. And as a woman, I mean, not not many years ago, autism was exclusively a male condition. Notice how I say condition and not disorder. It was because women couldn't be autistic. And here we are. And there's there's plenty of us that also, I think, yes, there's so much to work on in terms of of race, in terms of ethnicity, which are different things in terms of age and gender. And all the protected characteristics sometimes are anything but age. So yeah, we I think there's there's a lot that needs to be done, but I think we're progressing. But such incremental steps and I think we trust, I mean, it takes years to build and then it just takes minutes to be destroyed. So I think that's something to keep in mind. Thank you.

**Facilitator:** Yeah. Thank you, Participant 6.

**Participant 6:** Mine's not an old hand. I did put my hand up,

**Participant 6:** So I was going to again, I was going to put in an example from a different perspective. I'm aware of some research that was done to look into how and how to improve the school's environment for children. And one of the difficulties there of getting it implemented, of course, is funding. And so, you know, private schools can take that research and do whatever they like with it and improve the work the school environment for their students. But in state schools, that funding isn't available, and I think you probably will have seen the news article about the CO2 monitoring and things like that now, but that's coming as a consequence of a pandemic rather than as a consequence of the research into school environment.

**Facilitator:** Thank you, Participant 6. And Participant 3.

**Participant 3:** I just wanted to say, as someone who got into PPI after I graduated, I'm just surprised that when you go through your school career and you find out about all the amazing things that British research does and what science does in the UK and all over the world, they never actually teach you how you can get involved. Or just you don't need to have specific groups of scientists come to teach you this at schools, but I do think that I'm surprised it never came up in GCSE. It barely came up in A-levels. Why don't they just mention, you know, this is how people can get involved in these things, even if, let's say, the children are too young to actually do it? But just a general overview of how you can actually get involved in these things later on and why it's important. I do think they should be telling us this.

**Facilitator:** Thank you, that's a great suggestion. And Participant 2.

**Participant 2:** I think women have traditionally been second class citizens when it comes to medical research, I think particularly over things like pain, where nearly all research is conducted on men. But I think it's something people have touched on, I suppose, since thalidomide and the scandal over that. There's so much anxiety about harming unborn children that anybody of potentially pregnant age tends to be excluded. I think at the other end of the spectrum, certainly for age, where does most of the health money end up with? And it's older people. So why are we excluding them from research? I mean, quite honestly, you ought to get into care homes and places like that, and people who can understand the concept would be very valuable to include in research because if we're living longer, we need to know how to keep older people healthier and excluding them is ridiculous. Thank you.

**Facilitator:**  Thank you, Participant 2, a great contribution. Participant 8.

**Participant 8:** Yeah, thanks. I was just thinking about for me personally, one of the key barriers is really about like language and the intention behind language used. And so like when you're explaining to people about research, are you just explaining it because you want that participant and you're targeting them for x y z scientific reasons? And even when, as a researcher, you're completing your ethics form, are you just kind of reading it for the intention of passing your ethics and obtaining that clearance? Are you genuinely interested in making sure it is ethical? And in those circumstances, like I have challenged ethics committees when I believe there's a way to conduct research ethically that the typical forms don't allow me to do so. And so it's in my best intention to do the research ethically. And that's also not about just adhering to the guidelines. And I think that researchers also need to be taught that what does it mean to pass ethics and you can go back to like the ethics committee aren't like a scary bunch of people. You should be able to say, well, like you understand what's right and what's wrong and how I should be supporting the community and achieving this research. This is the community I'm trying to address, and this is what my intentions are. How do I best go about that? I think this doesn't help. So like one of the examples was I work in collaboration with a project in Harvard where they're collecting genetic data across five African sites specifically to do with schizophrenia, bipolar and then the developmental disorders of autism and ADHD. And according to Harvard's ethics protocols, they don't allow you to take like the consent forms home to look at them and explain them to your family. And this was something that I found very challenging because in that context, and even in this context, I would want to take that form home with all those details. Explain it to my family. It's about DNA. Like, is it something I want to consent to? I want to take time to do that. And also in some regions, you know, we have to invite both like more than one family member to to be involved in the consent process because that was deemed appropriate there. And I think it's all about, well, if you actually want to do that, how do you make sure they're informed? How do you make sure they understand DNA and in order to do that correctly? Yes, we challenged the ethics committee and it took a year, at least, but at least you know that you're actually doing adequate research. And I think that's something we really need to encourage and to look beyond like language and meaning. And when you're engaging with someone, people really need to think about. Language is not just a tick box, but how do you actually respect people, how do you actually engage with them and what are your intentions? I think those questions really need to be raised when we're thinking about research as an and overcoming those kind of barriers.

**Facilitator:** Yeah. Thank you, Participant 8. That's fantastic, and Participant 1, you have your hand raised. Hello, Participant 1. But I guess it was an old hand or there is no good connection, so I'll just proceed to the second question. And just to thank you for the for your answers to the first question. I'm hoping to to have a wide, wide variety of opinions and different opinions, and your contributions are extremely valuable in this respect and exactly what I was hoping so. Thank you so much for your valuable contributions and moving on. Moving on. Question number two: How do you think citizens, including you personally, your family, colleagues and your community, become aware of the impact of scientific research, for example, by reading academic journals, maybe attending public talks and presentations given by scientists, maybe from newspapers and other mainstream media? Or maybe some of you are on Twitter or Facebook, and so you can exchange information on social media. So all sorts of examples and opinions would be very much appreciated. And the general question is how do citizens become aware of the impact of scientific research?

**Participant 5:** I don't mind starting again. I don't think citizens in the community are aware of what's going on. I think we I would say I keep using that phrase, the usual suspects, we are the usual ones where here we know what's going and sometimes it's word of mouth. Sometimes I put what I do on my Instagram page on Twitter. I just had a tweet from Cochran looking into something, and I shared, but not everybody in my community is on PPI. Nobody would, for Christ's sake, go and read an academic report. Or excuse me. No, no. When they're not, well, they're not. Well, they go to the doctor. They face what they're in there for. And that's it. But I don't think anyone from my area would go and say, Look, today, this is what I want to do, and they don't make it accessible to people as well. The language, the barrier, the everything, not everybody can go in. You have to register to even read anything. It's only the ones you've been part of that you're able to read. But for me to just say, Oh, today, let me go and read on Facilitator, as because, you know, how do I know you if you didn't do this meeting today? So how do you make yourself known to us? And how do you make us know that there's something out there that we can read about that can empower us? So it's a two way system. You need to tell us that something is out there and we need to be able to go and find, OK, we know what you're talking about. So I'm not sure if you're doing your bit and we're doing our bit to find it. But as I think we're all empowered to do that. But just stop Mr be on the road to say, Oh, do you? They will ask you, what are you talking about? So it's it. We've still got a long way to get to that space from a citizens point of view.

**Facilitator:** Thank you, Participant 5. Participant 10.

**Participant 10:** Mute. And we're back again, that's it. Hi, oh, dear, it's actually this use of the word scientific research because Participant 5 has completely said what I would have said about journals and everything which are you can't access unless you pay and then et cetera. And also, like the majority of people, even the academics, they only read the summary anyway. So I feel, but because I've been involved, I started my life in marketing and market research, marketing research, and I think we have a lot to learn from that area. Not so much, you know, paying market research companies to do surveys for you. That's not what I'm talking about. I'm talking about. They know how to communicate with people. They know how to find focus groups, you know, question time, for example, on the television. They get all the people there from a focus groups that they've done before to. And so so that's what I think. It's the because you're scientists, because your scientific you feel you can't do audit evaluation, things that are qualitative research, quantitative research. You have to describe all that stuff before you even start, when in fact, the question is, you know, how do you feel today? And you know, what's it like and is, you know, does the weather affect your mood or something like that? And that's yeah, that's enough.

**Facilitator:** Thank you, Participant 10. Participant 3.

**Participant 3:** You know, just to echo that, I put in the chat, there's plenty of charities in the UK for different specific health conditions. You know, if you've got a scientist that's researching for a specific condition, I do think they should be reaching out to involvement networks if these charities have them. There are plenty out there that can help design the language even before the projects, you know, been signed off. They can help look at the the language used on your review sheets and that sort of thing. But I think as well. Another way to get the word out there is to reach out to any source of events that are happening in towns. You know, Oxford, for example, is a pretty big city for research, and you don't really hear much about it. You know, you hear these wonderful things coming from the UK, but it should be. And this is from your hometown. You should be proud of this. And this is from this wonderful thing that's come out of here. This is how you can get involved in other projects, even if they're not quite related just to sort of grab people while they're already interested in something.

**Facilitator:** Yeah. Thank you, Participant 3. Participant 2.

**Participant 2:** I think we need to acknowledge that different generations get their information in different ways. Project Participant 5 and I are on we were talking about information in newspapers and the 35 year old put their hand up and said the last paper he bought was when the London Olympics were on, which was about ten years earlier. And so there's no one way of getting to everybody. A lot of the popular press does half stories about research. And if you actually bother to read right down to the bottom, it says clinical trials are likely to start in the next five years or something like that. And they're very good at making people think that something exists when it's actually years off. And there's no one trusted source of information, which is why I think for all of us that do P.E.I. just talking to people and getting honest messages out there is so important. But we can't, you know, we can't get to everyone. Thank you.

**Facilitator:** Thank you, Participant 2.

**Participant 8:** Yes, I just want to say I think Participant 1 was trying to join and is asked for the link again, he can't get back in. But actually, I was going to say something very similar to Participant 2 about. I think the media have a lot of responsibility because I mean, I find a lot of things, obviously through the media, whether that's social media, it's often online or on the TV. Yeah, I also couldn't believe it's been over 10 years since the London Olympics. But yeah, I definitely haven't read a newspaper in a long time. But, but yeah, I think the media is is definitely a go to. And actually, I think it would be a really good idea to have like a kind of meta database where you can go to for that because I know, okay, you can sign up to certain like charities and organizations specifically about your your condition, which can be informative. But yeah, I matter kind of database would be hugely helpful.

**Facilitator:** Thank you. And Suzanne, do you have your hand raised?

**Participant 6:** So I would just said to a couple of perspectives, from a personal perspective, if I want to know about something, then I will go and dig around. But that's my nature. The the interesting comments about the the general news is that clearly they tend to publish what's popular. And so you only get to hear about the impact of scientific research. That's kind of big. I'm thinking of the, you know, all the space trips and things like that recently and all that kind of stuff. But science festivals, yes, somebody picked that up. Science festivals, Cheltenham Science Festival I've been to and Oxford Science Festival. I've done all sorts of interesting things through those kinds of avenues, which is quite interesting. But what the other interesting thing is that, of course, is if the scientific research is private, it's often not published. So it's very difficult to know about everything.

**Facilitator:** Thank you. And Participant 4, you have your hand raised

**Participant 4:** Hi, yeah, so sort of again, coming back to work, Participant 2 was saying about different ways of accessing things I access sort a lot of things through social media. So, for example, on YouTube and other sort of video platforms, that's where I might hear about research. If someone I know has done their own kind of research into articles and papers and they've they're kind of presenting it in a much more accessible way. And I might hear about new things through that. And I guess another way that I would find research would be through kind of my involvement and doing lots of other kind of studies and research and seeing kind of posters up on billboards around the university and sort of seeing what kind of projects and research are happening. But it's a bit sort of hit and miss. It's not very reliable way of kind of getting access to that.

**Facilitator:**  Thank you, Participant 4. And Participant 7 and Participant 9 next.

**Participant 7:** Like Participant 6, from a personal perspective, I tend to look up things that I'm interested in and I Google things and I go to the source. But also Radio4 does a lot of programs. I think it's called the science hour and all in the mind where they tend to update you on the latest research. And they also have the red button service, which has a whole section. And they don't obviously, they don't go into great detail but gives you something you can then sort of Google. Some charities are very good at promoting research like mind. But I think that the last speaker was saying that sometimes it's misleading because a few years ago they were talking about how we, you know, we'd all have joints printed on a 3D printed machine. We'd just give them a bit of cartilage and they'd print it off. And what's happened to that? I was watching this thing. I think it's called Good Morning Britain. It's not on at the moment. It's on BBC One in the morning and they have Sun van Tulleken on. And he mentioned this thing in Japan, where they'd been regenerating cartilage in the knee with the laser. And I thought, I've got a skin in the game here. So brilliant and I'm going. I couldn't find anything. He didn't mention who did it, and you know where you can find more information. And then I said, Yeah, it's what stage is it at? You know, is it? And I thought, And will it ever, you know, even if the trials are fine, will it ever be adopted by the NHS? Nice has to approve it. How much will it cost all this? So I think a lot, a lot of research is misleading. Also, I think a lot of why people find out information is through books. So Ben Goldacre wrote a couple of books, so big pharma and bad science and all this, and I'm currently reading something by Bill Bryson. The body uses guide, and that is very up to date research because it's a very, up to date book. But I research something to do with research just the other day, and I hadn't really thought about this. But when you have these NIH clinical trials, there isn't money set aside for dissemination and nobody's appointed to do dissemination. And by the end of the trial, the like trial managers are off looking for their jobs and the research, as are so often because always when people do this research for years and then it just just goes into some black hole or there's a line about it somewhere on the website, but that explains it if it's nobody's job and there's no money set aside. So that's just my two Pennyworth.

**Facilitator:** Yeah. Thank you, Participant 7. And Participant 9.

**Participant 9:** I was thinking that it's not just how you get the word out, but. And even if you do it in an accessible way, you usually do it in the traditional accessible way. I think we need to start thinking outside the box. I think we need to start thinking about being more creative, appealing, and I always think you know how Facebook was created just for Harvard students, and now it's mainly used by the elderly population. So really, it's anything is possible. And I think sometimes people put people into boxes saying, Oh, they can't do this or they can't do that, says WHO. I think as long as people have the means and the technology and everything is possible, but I really do think that we need to be more creative and perhaps use PPE people to deliver the message, but deliver it in a creative way. Say, Create PPI influences. Why not? You know, there are influences selling all sorts of things. Why don't we have people who are laypeople who are involved in research and do that and just think creatively? And there's so many ways to be creative. Lay summaries are just something, but how do we get the lay summaries across a wide range of people? I think that's what we need to start thinking about being more creative.

**Facilitator:** Yeah, it's I guess related to what Participant 10 was saying earlier about marketing, research and communication. And Participant 1, you have your hand raised. Hello, Participant 1. Are you with us?

**Participant 1:** Yes, I do. Sorry, I'll just unmute myself. I was just thinking and discussing with my mom, and one thing she said is that. And like, for example, first, I'll give the perspective about the reason in terms of the question. There is an organization called Senex and Cineplexes. They are quite good in sending newsletters and emails about research opportunities to get involved as a participant. There's also the voice and which is part of the Newcastle University. Then there's also the NIH are. Then there's also the McCain Foundation, which is a mental health research charity. Then there's also opportunities that come in the national services and network. But what I wanted to share is that these platforms are great for all of us as long as we are fluent in reading and writing and speaking English. Secondly. There are good platforms if you are digital competent, because nowadays most things come in the form of emails and attachments, not hard copies in the post. And then third thing is how they are not suitable for others like my mom. The first thing is they don't even know that they exist. Secondly is that it's draining for people who are your loved ones. So, for example, I'm a carer for my mom, so every time I get her involved with something, I have to take on the pressure of tech like supporting it through the process. And I think that even if somebody's not a carer but has a family member, particularly women who are from BAME background that don't speak or can't read or write English because I think I want to detach two things here. There are women who can speak English fluently but can't read and write English, and there are women who can't, who can't speak and can't read or write. And what I meant is that there might be women who could come and participate in this verbally. Very. Confidently, but because they can't read and write. They're not here today. And also, I want to extend that to other women who don't fall in the BME category because you could also be an English woman but have a mentor. So the leading edge of a four year old five year old. And this is not uncommon. Last year, there was a research done in 2015 that highlighted seven million people were coming out of the age of 16 from schools with the reading age of a seven year old. How sad is that seven year old reading age at the age of 16 in today's society? So to keep it short and to the point, what I wanted to say is we've got to find ways to if we really want meaningful research engagement, we've got to create different ways to reach out to different communities. And I like what Participant 8 said is that sometimes protocols and processes and ethical committees and all this kind of stuff gets in the way. There is a place and a space for those, but sometimes it's just bureaucracy taking political correctness too far. And here's an example. I said to somebody, you're doing this thing, my mom, why don't you come on video and record it when she says she's giving consent to X, Y and Z? She said, I'm really sorry, but my bureaucracy research says she has to initialize this piece of paper and sign it. And that means that can only be done by me being in the room with they're physically going through it and then getting her to initialize it. Another stress for the person who's supporting you. So what I like to say is we need to develop partnership working with community organizations who are specifically working with different communities who don't have English as a first language. And through those communities, we need to get participation in our research. And I will go quiet now, and I'm glad I had an opportunity to share my of my mom's views together. I'm sorry when I say my view because I can't help it.

**Facilitator:** So thank you. And just to finish off this question, can I ask you a related question that several of you have raised, which is about open access nowadays? Many research funders are they encourage researchers or even require researchers to publish their research in open access journals so that everyone could access this research, which is often funded by taxpayers. And can I ask you about your personal experience, whether it's something that you benefit from? For example, you want to google something. You find an open access article and you read it. Or still, there are barriers in terms of the knowledge and experience required to to cut through the scientific information and jargon. Just very brief answers, please. If we could start with Participant 6, have you raised your hand? Yeah.

**Participant 6:** So yeah, I've got some very recent first hand experience of this with my father. So I've been reading some papers on some research that I'm interested in. And I was chatting to him just generally, and he went home and opened the paper and then rang me later and said, It's all very interesting, but it's way over my head. So open access, I think, is OK. You're absolutely right if you can cut through or the sort of terminology and things like that. But for your layperson, less useful, I would have said. And the other point, just going back to your previous question, I would have said one of the bigger problems, I think from citizens becoming aware of the impact, there's just so much and it could become overwhelming. So from my perspective, that would be looking at what I'm interested in. That's why I go to what I'm interested in rather than the very big picture. And even in food science, which is my world, the picture is huge. And and yeah, so completely overwhelming. So how do you distill that for citizens to get a grip of?

**Facilitator:** Thank you, Participant 6. And Participant 10, you're next.

**Participant 10:** All right. So wake up, I. I mean. Okay, what was I going to say here? Sorry, I completely switched off for a moment. Could you did have something to say? Could you remind me what you wanted to know? Oh, I know about open access, right? Yeah, sorry. I think it's my the long term use of pills. I think it's probably what does it anyway. The open access I'm on, I'm a reviewer of an open access journal called Research Engagement and Involvement, which is a it's a fancy publisher, Springer and Springer Nature and all that. So it's a mainstream. Publication BMC, I think they call it, and it's and I mean, I'm one of the many reviewers. They've got hundreds of reviewers. We're not paid, of course, but they're not I. Then that's the other thing about payment for doing things because I'm not paid for being a reviewer on hit on this, but it's not terribly. It's I'm interested in it. I think this is what people have been saying. And therefore, and they also asked me to do all sorts of things, not just mental health, which I've got a far broader perspective than health about policy and strategy and legislation and and the UN Convention on Rights Bill, disability, whoever you know. And. We all we label ourselves sometimes, you know, we are a victim or illness or whatever, but we also it's we're put into silos, whether we like it or not, and sometimes it's really hard to get out of the silo. It's got very steep sides, I think.

**Facilitator:** Yeah. Thank you, Participant 10. Participant 2, you're next.

**Participant 2:** I think open access is only really useful if it's to a plain English summary or something as a lead-in, because open access to something very scientific won't suit ninety five percent of the population. I think it's also only useful for the curious because not everybody wants to research things. I mean, I belong to Y, and any time they want something research, they seem to give it to me because nobody else is actually interested. They like being spoon fed the knowledge, but they don't want to delve around and find it. Thank you.

**Facilitator:** Thank you, Participant 2.

**Participant 8:** Yeah, I just wanted to say, I think open access is great, but but I think it has a certain audience and the audience is basically like people who have the ability and some kind of training in social science or science to be able to read it. And I mean, I think it's good in the sense that other young professionals, not necessarily in academia can access it, but actually, if it's for the purpose of engaging and informing the community it isn't right, it's not fit for that purpose, basically. But I mean, I don't think we should get rid of it. It has its use, but it's definitely not community engagement.

**Facilitator:** Yeah, thank you.Participant 1, do you have your hand raised? Do you have anything to say about open access?

**Participant 1:** I do thank you so much, I do. I think that what I was going to say is that. I like what Participant 2 said about, you know, sometimes people are not coming forward and we need to also disassociate or categorize that group who are very affluent, very articulate, very much know the opportunities are there, very much know how to get involved but choose not to. And I've come across a lot of BME women who have said to me, I know all that, but I'm not interesting. It's boring. How do you sit in a two hours long meetings in a boring meeting around a table? And I always question this is rather than become defensive and think they just can't be bothered. I've tossed ot on its head and said, No, what can we do? And when I say we, I mean the research, well, not me as personally, but the research world. What can the research world do to make it interesting and make it more engaging that suits people? And like what Paolo Ferrero, the Brazilian philosopher or teacher I think he was that was working with the travelling community in Brazil, had said a hundred years ago, he said. You have to teach the way the community learns, so it doesn't mean that the communities don't know how to learn it, just you have to teach them the way they learn. And I want to bring that concept to this world. We need to engage people involved. People get people to participate in the way that works for them in that community. And not just one way either complete this boring survey with 300 questions or come to a meeting and sit around a table, And let's just, you know, there are so many different creative ways we can do that. And I just want to quickly share something out of context to bring it back in context. We wanted to engage our citizenship with young people many years ago. I was involved with the youth project and what we found that asking young people to come to a meeting, they're not interested. As beautiful as, say, a survey, they're not interested. Asking them to come and speak to one to one, they find it quite shy and quite like it's too much for them. So we organized the trip to Blackpool, filled the culture with all these young people. As far as they were concerned, they were having a day trip out and on the way in the coach. We did surveys, we did a mini discussion groups on the way back. We did the same and then they just thought it was just time passing and just general conversations. But actually, there was a lot of meaningful engagement going on, and the feedback we got from the young people is they loved it because they were looking forward to going somewhere and on the way back. And also they couldn't be distracted because they were caught on the coach. They were ours for three hours, then three hours back. So I want to bring that concept to the women and this world is we need to do something similar by using creative methodologies and creative way of engaging, evolving and increasing participation. Everybody wants to be a citizen. Everybody wants to stake in citizenship, but it's got to be offered. What suits those individuals? Thank you.

**Facilitator:** Yeah, have very well, said, Participant 1, thank you. We're now halfway through, so I would like to ask you whether you would like to have a break and if so, five minutes, 10, 15, 10 and. Fantastic. Thank you ever so much. It's been a privilege listening to your contributions, the wealth of information and the opinions is just incredible. So thank you.

**Participant 7:** See you later. Thank you.

**Participant 10:** Is it 1:35? We come back. 35, to whatever default is it? No, whatever. Yeah. Just look. Thank you. Right. Thank you.

**Facilitator:** Hello, welcome back, Participant 9.

**Participant 1:** We are back. We are back.

**Facilitator:** Oh, fantastic. It looks like everybody is back. So can I just proceed to the second part of our focus group and we'll have three more questions, but I think that they will generate less discussion than the first two, so we might be able to to finish before five. And the next question is, are you aware of any initiatives that help to engage citizens in science? For example, media campaigns including social media, public talks, open days, science festivals and any sort of event? So it's a question whether you are aware of such initiatives in general and if so, especially if you had an experience of participating in one of those initiatives. What is it? What is your experience? Everything they they work or they desire a little bit more to work.

**Participant 5:** I, sorry again, I participated. Yeah, I participated in with Macmillan and we tried to do something in the community, but it didn't work. We didn't have enough people turned up, so I'm not sure. Maybe we didn't raise the publicity or I don't know what went wrong, but they were like few of us and that really dampened my spirit. I don't think I've done any more since then because I don't know how we really can reach out. But I like the example that Hammett gave of, you know, meeting people that you know at. Then you know where we can join together rather than, you know, we're there and they're there. We want them to come to us. We're not going. And we went to a part of London meeting where we thought there would be loads of black people I could count, you know, just the US and the the the Macmillan staff. And that was it. And it was really. And ever since, I don't think I've done anything else because we just don't know how to get this right. Is the word not knowing how to get it right?

**Facilitator:** Yeah. Thank you, Participant 5. Participant 7, you have re-joined us. We're talking about initiatives that help to to engage citizens in science. And particularly, we're looking for personal examples of people participating in science festivals, talks and those sorts of other activities and their experiences. So if you could think about it while we do that.

**Participant 7:** I'm sorry, I went to get back in, but Microsoft Microsoft made me do third party. What was it? Third party authentication where center thing to my phone and then I have to put it in. I'm really sorry. I have endless issues with it. I'll think about that while other people talking sorry folks tastic.

**Facilitator:** Who's next? I think, Participant 8.

**Participant 8:** Sure. Yeah, I mean, I've had some engagement with science festivals, there was a couple in Oxford, but even before that, there's Pint of Science. And like, I find that really fun and actually I would go when it was in a very like central location on my way back from like something else I was in town for. And it was really fun and useful to learn. It was about like physics and other stuff that I have like limited understanding of. But it was really engaging and very visual. And yet, like, I already enjoyed that I would definitely go again. But I think I only went like I said, because it was very convenient.

**Facilitator:** Yeah. Thank you. Participant 3.

**Participant 3:** Yeah, there was one recently, women in science, women in research day, even though it was that's a really good social media day rather than a collection of physical or virtual events where you can just go on your Twitter feed, for example, or whatever, and just see different charities shout out about some amazing accomplishments. I think day is like that do work really well. Like World Radiographer Day, World Cancer Day was a big one. I went up to London with Cancer Research UK for that, and there was quite a few lovely announcements that came out and they did a big online presentation about the sort of, you know what, what they've achieved in 20 years. And that was viewed quite a few times by, you know, the stats were quite good for their webinar that they did. So those kind of events can work. One thing that I do think that. Research doesn't necessarily get involved in which they potentially should do is the fact that research participants basically are volunteers. I know that they can be paid for their experience, but it's an honorarium. I don't think that they that research necessarily participates enough in volunteer specific events or shouting out about what people can get involved in to sort of help their local research. There's so many Student Volunteer Week International Volunteer Day. I do think that research should get on board with this a little bit and just sort of shout about how what they do. They can't do without their volunteers and use it as a sort of marketing tool, basically to say, Oh, this is how you can get involved.

**Facilitator:** Thank you, Participant 3. And Participant 10.

**Participant 10:** Hey. Right. Excuse me. Another of my conditions to say Participant 6's already mentioned the big ones like Cheltenham, the Cheltenham Science Festival, which is great, but it's very expensive to attend and you are excluding probably your target audience. I mean, I haven't been for ages, and I went to one about the science of chocolate, obviously, and it was it was, you know, lots of people, but it was expensive. Even then, when it was a long time ago, £10 or something, and it'd be more like £20 now for a ticket. And so you have to be I think you're talking. I don't know the rest of you. We're talking about three events because I think that's very important. And this is slightly related. But I'm in a research project at the moment called a living library for mental health for the north of England, actually. And I think that's a way of using people's experience as science, if you like. And I don't think the two links very often. And I'm sure the people participating don't think of it as science, but that's what it is because in order to get to this point, hopefully it's been a scientific program, you know, like a clinical trial, but it's not what I don't know whether it is a clinical trial or not, to be honest. I don't know. Quite. I've done lots of stuff and I read lots of stuff, and I'm still not completely sure what research is, whether it's clinical trials or not, clinical trials. And you know, this famous gold standard, I think you need to demystify research and also don't get people to pay lots of money to go to these events.

**Facilitator:** Thank you, Participant 10. Ad Participant 9.

**Participant 9:** Yeah, I've given a few talks. I did face to face before the pandemic, and I was invited sometimes to go to hospital trusts, other times to speak at a university for or medical students. And also online now more online than anything else for the National Institute of Health Research. I'm actually doing one on Friday. And I've also paired up with some researchers where we give the it's like sort of an interview where we have the questions and then it's published online and then people can go and see it. My downfall is that I am terrible at self aggrandizement, so I meant to after I do that to put it on social media. But I hate it because I just don't like talking about myself in that sense, and I know I probably should, but I don't. But yeah, I've done a few things, and I think the first time I did it, it was really nerve wracking. And but now I'm a lot more confident and I've had such positive feedback from other people and I think it should be done more. You know, people that are laypeople that are involved in research, having their experiences been talking about their experiences and recording that, putting that online so that other people can see and say, Oh, look, Participant 10's done this. Participant 5's done something as well, maybe I could do that as well and people talking about their experience, I think it's really important and it can be really captivating for others and inspiring even. So, yeah, yeah.

**Facilitator:** Thank you. And just to clarify this talks were about your PPI experience,

**Participant 9:** Both about my GP experience and my experience as a participant in research as well. So both things more PPI, but also the other side, because I like to talk about both things. Yeah.

**Facilitator:** Oh, thank you. And Participant 1, you have your hand raised.

**Participant 1:** Yes, thank you, I do. I want to quickly say there's also something called research for the future, which is, I think another thing that is really annoying for be very annoying is sometimes research will ask for. Participants will ask for people to get involved in leverage. My experience advisory panel and. They promote it so much that it get like 500 people interested, and they only tell two people that you're going to be taking part and I think you need to just talk, target the amount of numbers you need and on any go or it goes the other way where you can't get participants and then you just get the same ones over and over again. And like Participant 2 said, that it's not that Participant 2 probably wants to be part of everything, but if people are not coming forward, then Participant 2 will get opportunities. And sometimes I find that you get sometimes jealousy from people that say, Oh, how come you're involved with everything? But the thing is, I don't want to be involved in everything. But if other people came forward, then that would be great. But because other people don't come forward and somebody asked me, I don't want to let them down. So that's something I wanted to share. And and I mean, I'm glad I said me, but there might be some women who might be in that situation, so I'm trying to keep the women focused. And secondly, what I was going to say very quickly is that, you know, in terms of research. People associated with marketing. And that is also an issue in itself, because they think it's all about selling a product or it's about, you know, something to do with the product and also for most people like my mom generation, if you talk about of research, they assume that it's these big, rich companies that just want to do something to pick their brain. So but it's, you know, so there isn't this kind of association that research is also done by non. Profitable non private companies for the interests of the public, it's almost like it's to do with private companies. And we need to demystify that in our communities. Thank you.

**Facilitator:** Oh, thank you, Participant 1. And Participant 6.

**Participant 6:** So I've got a couple of examples, so I live in Oxfordshire and a lot of the large science facilities here hold open days on a regular basis, but also putting the shoe on the other foot as someone who organises events for the. See, they those organizations are also very open to being approached to organize at all for a specific group. And most of that is free. I haven't had to pay for any of that yet. The one that I tend to go to and repeatedly go to is something called Fame Lab, which is where actually young researchers come and talk for three minutes on their science subject. And it is a competition. And that actually the final is hosted by Cheltenham Science Festival. But even the attendance at the final is free, which is really interesting. What I think is very interesting is if Oxford, which is the Oxford Science Festival, has moved to a pay as you feel for their events so you can pay when you've been and then make a donation based on how you felt about how it went or you can not pay anything. So that makes it much more accessible for people. And something else I've been involved in recently is Zooniverse, where you can go to Citizen Science website, where you can go and translate stuff, or you can go and copy from old documents into records and things like that. And that's got a lot of citizen science projects on it where people can just get involved.

**Facilitator:** Thank you, Participant 6. Participant 7.

**Participant 7:** And I attended the Warwick Warwick University, had this kind of roving annual conference a few years ago, maybe four or five years ago now, and I don't know how it got invited to that, but it was free and it was very interesting. There was a bit of participation, so there was a researcher who did research on how dancing improves cognition, and I did a bit of dancing. Then I did a sort of test afterwards. But I believe these things take place in different areas throughout the country, so it costs me a day saver bus ticket if it be like somewhere else. The costs would have been prohibitive in terms of kind of contributing to stuff. I've got up and spoken about my experience of mental health problems and treatments at the annual research and innovation events that they have every year come to Mortuary Partnership Trust. I did that two or three times in front of large clinician psychiatrist, what have you? But quite frankly, I felt used. Yeah, I felt exploited. So I guess last time they asked me, I told them to get off. I also spoke quite recently at the British Psychological Society's Diversity and Inclusion Training Group about the effect of COVID on participation, PPI, that sort of thing. I think. Oh, yes. What I was going to say is that there were a lot of free online lectures now by researchers, so recently I went to one on Carti, which I think is a genetic treatment that's largely used for leukemia. And there was something in the press about how it's being used in it long term, and it was in the papers. They said it was a wonder treatment. But it isn't because only half of people who were really dying benefit from it, and they don't know which half. But that was very interesting. And then I attended another talk on how about COVID. It affected people with rheumatoid arthritis and how people's rheumatoid arthritis had actually done fairly well, that slightly higher death rate. But the drugs that they took to dampen down their immune system acted as a preventative because it's a cytokine storm that kills you more than the original infection. So there are things around, but I think I think if you kind of if you work for a university anyway, then you probably be more likely to be aware of these things, if you know what I mean. I think members of the public wouldn't really know about it or get invited or what have you.

**Facilitator:** Yeah, thank you. That's incredibly helpful. And moving on, our next question is about initiatives to recruit new talent into science. We know that in some areas of science, women and ethnic minorities are particularly underrepresented, and many governments in Europe and then in the UK as well are trying to come up with policies to attract new science, new talent into science, either as scientists, as research participants and or public contributors. So my question to you is, are you aware of any such initiatives to to recruit new talent into sciences and particularly people who are currently underrepresented?

**Participant 5:** I think again, I'm going to start. We need to find out what the problem is before we start thinking of solutions. Not that they don't want to do it. What's the problem? Why are they not getting there? We can't just say, Oh, we need BME with, like Participant 1 said, that sometimes you have to meet people at the point of needs. We can't just be saying, Oh, let's take that books. We've got BME now. Let's go and take that both. We need to find out why. And the beginning is the trust. The trust is still not there for you to come out and say, Oh, you know, people will laugh and say, Oh, let's get BME. They say, OK, they just need us to tick the box. We need to build a rapport before you can even do anything. We really need to build a rapport. Cpi most of us have been on this night, 10 years, over 10 years. If we didn't just start today, we trust each other, we know each other. We talk, we are free, we build the rapport. Before you started, Oh, let's just go out and recruit the underrepresented. Let's just go and get them. That's like an insult to me. It's like, Oh, we just need them now, let's go. What can we do? You didn't ask me what? I started doing this because of the condition. My passion that I want to advocate. I want to do this. You can't just say, Oh, because we need them, let's go and take the books, know that you need the rapport. You need to start from the beginning. Nobody. We've been doing this. I haven't seen new faces. It's just same old, same old, same old. So something must be wrong somewhere. You need to fix that, not just put a plaster over it. That's enough for me.

**Facilitator:** Thank you, Participant 5. Participant 3.

**Participant 3:** So my sister who graduated this year, one of her friends, a female friend, studied engineering and she was the only person in her year group that was a woman studying engineering, and she received so many emails from her lecturers to attend these women in STEM women in engineering events. Far too many that she could possibly attend by herself and all of her male students were sort of confused as you. Why all these events happening? And they're only inviting women? Because you know why? Why aren't there enough women to go to these events? And why do these events need to be held in the first place to getting to the point where they're already? She's already studying the course. She clearly wants to be an engineer. That's too late. What happened to my sister, who didn't study engineering? She went to study something completely different. You need to be reaching out whilst they're younger while they're in schools, for example. Work Experience Week is a big part of choosing what career you're going to do. And it's very difficult to find work experience during these work experience weeks when you're in GCSE in, for example, lab or hospital, because their staff just aren't equipped to be able to take these students so they'll go after all. I was thinking of maybe working in a hospital, but I was also thinking of maybe being a teacher, and there's lots of work experience opportunities in that instead. So they'll go off and do that instead because they couldn't access the labs or anything else, because there wasn't the opportunities available. There needs to be far more opportunities for people to attempt work experience or working conditions to see what it actually is like in these professions. One way that people have been trying to do it in the pandemic has been online work experience modules. For example, there's one called forage. There's another one called the Bright Network, which do these online work experience programs where you do, it's about eight to 10 hours of work experience. It's basically more like an online course than actual work experience because clearly you're not doing official work experience, but you're mimicking it and seeing whether it's for you or not. And it's been a great way for students to see whether that's the career choice they want to make. But I think more of these need to be made and more actual in-person events as restrictions ease in order to gain interest at the school level.

**Facilitator:** Thank you, Participant 3. It's actually very interesting what you're saying. And just to address the point that Participant 5 has made about the rationale for this. The example of engineering is a good one because we all have our own biases and the rationale for for governments and for large research funders to attract new talent is to to minimize biases that currently exist. For example, the seatbelt the car seatbelt has been invented more than 60 years ago by a United States Air Force for fighter jets, and they developed the prototype based on the physical characteristics of the average fighter jet pilot that was male. And what happened for tens of years is that many pregnant women lost their babies or had other problems because they seat belt, as it was designed, didn't take into account physiological differences because American fighter jet pilots wouldn't get pregnant, obviously, and they took a female engineer working for Volvo in Sweden to invent the seat belt that actually takes into account the needs of pregnant women. And thanks to this, now we have people of all genders can benefit from seatbelt equally. So that's kind of the main rationale to to recruit as representative members of public, to be scientists and be research participants and public contributors in order to minimize all possible biases, either conscious or unconscious. So just moving on, Participant 2.

**Participant 2:** I think it's terribly important to do more of the people like me so that youngsters can have a look and say, you know, female engineer, black black scientist, you know, whatever it is that you can't just keep putting up sort of white men as an example of things. And I think the more younger people are exposed to lots of women of different ethnicities doing interesting things, the more it'll fire their imagination and make them think, well, if they can do it, why can't I? And you know, I I, I'm so ancient I precede equal opportunities legislation, and there are huge barriers to still, you know, 50 years on, just about it is 50 years old to, you know, things that still look like men's jobs. And we've come a long way, but we haven't come anywhere nearly far enough, and we need to have more women out there saying, you know, I can do it so you can do it. But influencing, certainly by secondary school and ideally at primary school, you made the point about seatbelts. I've read recently that even the protective clothing for COVID, most of that is actually modeled on men. And so face masks don't fit women properly. You know, what are we doing if everybody thinks that you know a Caucasian male is the norm, especially in professions like nursing, you know, is nearly all women? So, you know, look at who look at your end user and get people like me, not not me. Other people, you know, out there to say, Look what you can do if you take an interest and, you know, go for it and don't let anybody tell you you can't do it.

**Facilitator:** Thank you, Participant 2. Participant 10.

**Participant 10:** It looks, though, again, just to say we've talked a lot about other people or even people like me, but all of us who've been doing PPI for for a long time have got lots of experience and should be included as researchers in projects because we are we have the skills. And obviously, if you don't want to do it, don't want to do it, that's fine. But that's like any job. And it's also a proper co-production. So what I'm trying to say is that research should be co-produced and that can be done by having supporting people who want to be service users, people, patients use LED research or because at the moment, if you're somebody who wants to do user research, it's really difficult to get funding and collaboration to get funding. So if it was the norm, then it would then it should be. Why not? Rather than why? Yeah.

**Facilitator:** Thank you, Participant 10, very well said. And Participant 6.

**Participant 6:** I want to respond really to Participant 3's point about catching youngsters at an early age because I work with the RSC and we run a couple of competitions each year that are open to all schools in our local area. But we have a real problem with secondary schools, a state secondary schools just don't have the resources to get their kids to these things. So again, we have this bias that they're taken up by private schools. And so we we have an overwhelmed but we do we do prioritize state schools. So if a state school applies now, then they get priority over a over a private school. But also, we we we're sending stuff out to the school now that can be done in a class lesson to make it more accessible. So from a science perspective, that's the sort of thing that we're doing.

**Facilitator:** Can I just ask to clarify what RSC is?

**Participant 6:** It is the Royal Society of Chemistry.

**Facilitator:** Thank you.

**Participant 10:** Sorry, I just thought it was the Royal Shakespeare Company. I just I just. That's what that's what it means to me, and I didn't think to query it so well done. I fell for asking.

**Facilitator:** And thank you. And Participant 7, you have your hand raised.

**Participant 7:** I'm not particularly aware of any initiative to recruit new people into science at all, except I say this then as written, this paper could include which is a strategy, but I don't think it particularly explains how you increase people who are seldom asked. It's a wish list, as usual. I wanted to agree with what Participant 10 said as well in terms of PPI. I think, in PPI, they like you to be involved in certain things like lived experience advisory panels and, you know, looking at patient information sheets and being a co applicant or whatever. I don't think they like you get involved in research, per say. You know, I think when it comes to we could kind of do some of the research myself, we could help her. But I've always found that they're not willing to do that. It's not. It's not just me personally. I've read books by survivors of mental health problems who've written about this, who wanted to be researchers, and they're excluded largely. No matter how well qualified they are.

**Facilitator:** Thank you, Participant 7. And Participant 4.

**Participant 4:** Hi, yes, so I helped as a helper in the Royal Institute master classes, which are aimed at sort of bringing school age children in year nine and 10 into science and trying to, especially in lower income schools, trying to increase participation in science for them. And I kind of heard about that through the university sort of computer science ambassador scheme where we try and help with these outreach programs.

**Facilitator:** Thank you, very valuable. And Participant 6, do you have your hand raised again?

**Participant 6:** I would just add that I have recently become aware of the Good Food Institute, which is an NGO, have literally just set up a team of staff to go out to universities and or businesses and organizations to encourage them to look at developing modules for courses and other activities to direct talent into food production.

**Facilitator:** That's very interesting. Thank you. And does anybody else have anything to add?

**Participant 5:** Uh, can I ask a question? Yeah, when when will we find out the result of this, what you are doing today? How would we know the impact of what we've done today?

**Facilitator:** Yes. So there would be an experimental part of this project whereby, uh, I think in August, September, we would come back to you and ask if you would like to participate in the intervention. And the intervention would be about raising citizens awareness about science and the opportunities to participate in science. And it's likely to be a workshop. The details of which are currently being formulated and then those who decide to participate would would become one group and those who decide not to participate or or or drop out. Later, they would form a control group and we would compare responses from the experimental group who participated in the interventions and those who don't. And it will be in the autumn 2022. And after that, we would have the results and would let everybody know everybody who has participated in the project and will publish the results, probably early in 2023.

**Participant 5:** You know what I want to say these people who are doing the workshop or creating it and their patients and their researchers, are there any patients voices on creating this like a co-production? Because we keep doing all we want to, we want to. Then we keep getting the same results because you need people that have experience of PI, maybe one or two to be like, Look, what is what are you really trying to fix? You know, we want to fix. We want to fix what? What are you? You need people to be asking these questions. What are you trying to fix? They sit down in the white garment. Oh, well, scientist, this is what we want to do. They don't get anybody else involved. That's why they're not meeting people where they need to meet them. They just sit down in their boardroom. And this is why we think it should be da da da da da. And the that blog out there doesn't know what they're talking about. And we keep making the same mistake, same mistake. They come out. This is how we want it to be. And then we never meet. We're still miles apart, so they need to get voices from, you know what? Why don't we be an observer and see how you're running these things? And then we can say, You know what? That's why you're not getting anywhere or we don't want. This is how you can do it better. Something has to change.

**Facilitator:** Fantastic suggestion, thank you, Participant 5. And Participant 8.

**Participant 8:** Yeah, I just wanted to say, like, I think in regards to how projects and stuff reach out to certain target groups, to be honest, I think it's a lot down to the discretion of like the PI or the person in charge and up to their willingness. I work in a team where, yeah, like the person in charge really wants to showcase co-creation. And I mean, it's extremely challenging, mostly actually from a bureaucratic perspective and learning how to like challenge them to like, let's engage with X Y Z communities. Let's be able to pay. People like that takes the huge amount of time and stress. But ultimately, the project does then have that element of co-creation and is successful in that sense. But I mean, I don't think there's any place you can find it. I really think it's so much up to the discretion of the people leading the project.

**Facilitator:** Yeah, thank you, Participant 8. That's very helpful. And the last question for our discussion today, it's about, uh, government policies to promote citizens engagement in science. And the rationale here is that taxpayers there are men and women, there are people from different racial and ethnic backgrounds. They're both healthy people and people with certain conditions. They're people with different educational levels and so on. They all pay taxes. And for governments, it's important to ensure that if taxpayers money is spent on science, then it's important that people who participate in science and people who do science and people who contribute to science, they represent equally all those people who pay. So my question to you, are you aware of any policies of any government policies that promote citizens engagement in science? And if not, what are the barriers? Oh, Participant 2, you are the first.

**Participant 2:** I think any government authority this government is the kiss of death on anything at the moment because all of the Morefield and everything shows that there is no faith in the government, and I don't think it's a good time for the government to be doing anything. If you can find some trusted scientists to do it, preferably not once you've been seen on television too often, that might be a better way of going about it. But you cannot use the discredited government to promote, you know, this is how we're spending our money because they know that the populace is up in arms about them wasting money. And I think it's a good time to turn people off rather than switch them on. That wasn't meant to be political. I don't like any political parties, basically, but this is just a bad time because the government do not have the public support.

**Facilitator:** Thank you, Participant 2. Participant 5.

**Participant 5:** On a more positive note, something for once. I think I think Health Data Research UK, they're part of the government and they're really trying their best, they're really doing, they're trying to recruit young scientists, getting BME people involved because I sit on the lay advisory and then the trusted research environment that series. So they're doing something. But it's not just well known. Things are being done underneath well, just to bring that awareness out there. There's some other and I bet they're being funded by NIHR. So it is a government policy. And because they do the the SAGE report, we report, we read the report and, you know, we said the patient's point of view and this, you know, they send it back and say this is what the patients were. So it's getting up. Everything is disjointed. There's so many people doing the same thing. It's so disjointed. You know, I bet somebody somewhere is doing what you're trying to do and you know, it's so disjointed. You're not communicating. It's like you're all fighting with each other. Well, you know, nothing is being done. And this a positive report. Sorry, I just need to. But we'll get there. We'll get there. Thank God for that. We're grateful for this, but we'll get there. Yeah.

**Facilitator:** And you mentioned the organization, was it UKRI?

**Participant 5:** Yeah, it's a UK, Health Data Research UK. Yeah, it's a UK based and you know, they're into research and it's all about data, you know, people not trusting data and things. So they're trying to bring everything together and getting young ones to get, you know, to participate in data science, you know, from a young age and which I didn't even know what data science was. But like I said, it's starting somewhere, but you just have to be in the know to know it's there. Yeah.

**Facilitator:** Brilliant, thank you, Participant 5. And Participant 3.

**Participant 3:** Yeah. On a more negative note, again, I do think that it's often left is often left to the charities around health conditions themselves to do the work for the government to try and improve diversity and Cancer Research UK is creating diversity panels. The National Brain Appeal are doing it for the conditions to do with neurological conditions, but it's up to them to gather all this information together, to get it from the voices and then bring it forward to the government. And then what's the government going to do with that? You know, recently there was a big announcement for a war on cancer, and it sounded really great and positive. But then the actual cancer charities were saying, you know, it's a very positive message, but they're not really saying too much and they haven't really put a plan in action. It's kind of more words. You know, it would be great to have bigger plans from the government about involving people in science rather than just sort of saying they're going to do it and then just leaving it.

**Participant 3:** Yeah. Thank you, Participant 3. Participant 10. We can't hear you, I'm afraid.

**Participant 10:** Right, thinking historically, because I've been involved in over 30 years in this work and there's been really good things like mental health, like the asylums clothes, which were horrible and a good thing. And then community care came in and that was for me. Having been treated me all the time was fantastic. And there was a lot of support. And then then it all went peculiar. When it went to, I was deemed to be recovered because I hadn't been in crisis for six months or so. And therefore I was. My GP was going to have the final say about my care and treatment. And of course, the GP's don't know anything about. I mean, they know a little bit about everything and they can look it up. But if you need specialist support, they they don't. And sometimes they don't even know where to signpost you, or they get confused that somebody was saying, there's so much confusion in this area. So let me think what I was going to say about government policy in back in the what would it be? Eighties, I suppose there was a lot of investment in mental health and there was a National Service National Service Framework, which actually had targets and stuff, and there was lots of lots of stuff, which is all. And what nobody remembers any of that. Don't even go and look at it. It's it's this classic we have with. We are politicians. We have something new, like levelling up, for example, and the fact that nobody knows what it is or what the targets are or, you know and is somebody else was saying, there's all this money being spread about, but there's no you don't know the money is there to support the initiative. This the all. I'm aware of this ICIS, isn't it? Icis, the integrated care system, which is due to come in in July because they didn't get legislation through Parliament and that is completely getting rid of abolishing clinical commissioning groups. And it's absolute rubbish because it's going back to primary care trusts and they haven't even, you know, there's nobody learns anything, particularly in the government. Whatever the government colour is, so. All right.

**Facilitator:** Thank you, Participant 10. Participant 7.

**Participant 7:** Yeah, I agree with Participant 10, that whole thing about primary care trust being abolished, and then they become CCG, which were just assumed our version of primary care trusts. And then and now we've gone, but we'll go back to primary care. It's a waste of time and money to that to address the question. I don't actually know of any government policies to promote PPI or anything, but I know all I do know is that it's a principle of the NHS Constitution that people should be allowed to be involved in research as citizens. That's all I know. Yeah. So I don't know.

**Participant 10:** Oh, a negative answer is an answer to. So it's fantastic. Thank you, Kieran.

**Participant 8:** Yeah, I also don't know of any policy, but one thing I wanted to raise is that I think funders often have the power to dictate what research should and shouldn't do. And actually. Potentially the onus should be on the government to regulate the funders, because as researchers, your answer to the fund is right, like there's no point in the government taking on that kind of regulation. But ultimately, the funders need to be held to account and they be guided, or at least be involved in some communication with the government and set standards. So I think that could be the place to go to. But yeah, no, I don't know of any policy. It's mostly just like if you're applying for X Y Z funder, this will appeal to them. And so let's do it this way. It's nothing else, really.

**Facilitator:** Yeah, thank you, Participant 8. And Participant 6.

**Participant 6:** I'm going to echo the comments of the last two speakers, and that is that I don't know of any government policies to encourage citizen involvement. Not ever found anything. Not that I've looked to be fair.

**Facilitator:** Interesting. Is there anybody else who wants to have an opportunity to answer to this question or everybody has had their opportunity?

**Participant 7:** I just I've just thought of something. This may be totally irrelevant and they have these citizen science things where they ask you to monitor how many birds come into your garden on any given Saturday or how many trees you can see from your bedroom window. I'm not sure. I presume up from the government. I don't know. I presume it is. No. Oh, I just thought I'd throw that in.

**Facilitator:** Yeah, it depends on the initiative in the European Union, the government actively funds citizen science, for example, and then has its own budget for this in this country. I'm not aware of this.

**Participant 10:** Um, yeah, the thing about the charity's being doing the well, they're fighting each other for the same pot of money and for example, well, I know it's mental health. There is masses of big charities who are all saying, you know, give the money to me and I'll do it better. And it's just as bad if you like. And in cancer as well, there's masses of different arms and sometimes for good reason, but they don't seem to collaborate very well.

**Facilitator:** Yeah, thank you. And Participant 5, is it a legacy hand or.

**Participant 5:** It's definitely a legacy I think you've had you've had enough of it today. Yeah.

**Facilitator:** And Participant 6, is it like I say, Hunt as well?

**Participant 6:** No, no. I was just going to say I have just found that there is an article called Future Directions for Citizen Science and Public Policy that came out of Cambridge University last year might be interesting.

**Participant 5:** Yeah, you see, I said, there must be somebody doing what you're doing and nobody's communicating. I just said that.

**Facilitator:** Okay, thank you. I think that's all that concludes our focus group today.

# EDUCATION

## Control Groups

Control groups in education include three focus groups: 1 group with families, 1 with teachers and 1 with students.

### Families

**Investigadora:** Explicación.

**Investigadora: Si conocéis o cómo os ha beneficiado a vosotras la ciencia. ¿En qué actividades veis que os beneficia? Da igual que sean de salud o cómo se trate de otra cosa.**

**GP4 Esther:** Te puedo aportar la metodología, ¿no? que primero esté en la experimentación, después ponerlo en práctica y después ya tienes el fundamento. Es más o menos es eso, cuando tienes que probar algo pues es eso pruebas primero, ves las diferentes opciones que te puede dar, lo aplicas y ves la que te va mejor. La vida diaria pues no sé ahora mismo con tus hijos, Cuando los vas a castigar os mira si este castigo me sirve o no me sirve. Aplicó esto o aplicó esto otro. Y si ves a la práctica que alguno has hecho varias veces con el y ves que es ese te conviene, pues sabes que ese es el idóneo. Pues es igual que la ciencia prácticas ensayo y ya luego la conclusión. Al menos así lo hago yo porque sino no llego a ningún sitio.

**Investigadora: ¿Cómo os beneficia más?**

**Silvia:** Yo últimamente he tenido mucha ciencia a mi alrededor.

**investigadora: pues explícalo**

**Silvia**: Estoy haciendo un grado superior y he tenido que estar haciendo biología Y lo que conlleva Sara a mi lado : ¿Mamá esto qué es? ¿Mamá enséñame el cerebro? ¿Mamá…..? todo. En mi vida gira entorno en cómo le doy eso a ella.

**Investigadora:**  es como las interacciones…. Es como cuando estudias algo normalmente…..

**Silvia:**  si . El otro día me hizo pincharme para sacarme sangre Para mirarlo en el microscopio. O sea es que….

**Investigadora:** ¿las demás que pensáis?

Victoria: Pues hacen experimentos, sobre todos los niños pequeños Y te vienen y te dice¿ mamá si mezclo esto con esto? Y lo mismo microscopio y pinchazo. Te pinchan el dedo y miran la sangre en el microscopio.

Investigadora ¿ y cómo os beneficia en vuestro día a día? Bueno el cuándo hacen los experimentos se entiende mucho mejor Las cosas. que después lo aplique o no es otra cosa, Pero él lo entiende mejor. Porque es él mismo el que está haciendo las cosas.

Investigadora: aprender más cuando lo haces, no?

Victoria: Lo que interesa muy bien.

Diana: A mí me sirve y creo que ellas también Por ejemplo esto de servir bocadillos y Y ellas señalarme como que no. sirve para ganar peso. Todo lleva a la alimentación. (se ríen) Sí que es verdad que para mí me sirve para la dietética, para mirar la etiqueta. Por ejemplo, a mí me sirve la dietética.

Silvia: A mí para crear recetas nuevas. Porque con María el tema de las alergias es…

Diana: tu hija con todo el tema de las alergias

Silvia: si

Diana: o sea que todo el tema dietética también.

Silvia: lo miro aquí miro claro esto la levadura Tiene una mezcla la química no sirve. La levadura química no sirve Porque no sube igual , Cinemas azúcar porque no sé qué no sé cuánto.

Diana: Bueno Hayat aprendido mucha tecnología durante el confinamiento. Y esos ciencia¿ o no? Hacemos meets y todo

Hayat: Si

diANA: No sé que os ocurre se os ocurre a vosotras más que os haya ayudado

Silvia: es que la ciencia es todo

Esther: es que la ciencia es conocimiento

Mariana: es que ahora es más fácil antes no podías llegar a cosas que ahora puedes llegar. O sea por ejemplo ahora tienes cualquier duda y Fácilmente abres Internet y Ahí lo tienes.

Mariya: Es solo lo malo

Esther: la ciencia antes era más tabú. Mira algo más secreto más guardado De personas muy específicasY ahora pues si está la mano de todo el mundo

Mariana: si ahora buscamosY buscamos para entender otras cosas. Antes tenías un montón de libros y perdías el tiempo. Y ahora lo miras y tienes todo

Victoria: También te la pintaban muy aburrida

Unas cuantas: Y no lo es

Esther: Pero te la ponían de una forma que era muy difícil llegar a ella. Después cuando ya llegaba Y ves que no es tanto como te la ponían O como te lo hacían…. Es que casi todo te lo ponen como que es muy difícil y Qué poca gente puede llegar. Por ejemplo lo que tú has dicho de idiomas extranjeros , por ejemplo las mejores universidades están fuera. Pues por ejemplo para llegar aquí por ejemplo yo he estudiadoY yo en mi trabajo he tenido que hacer mis procedimientos de trabajo A lo mejor estaban en inglés ¿ porque tenían que estar en inglés? O sea te ponía de forma complicada para llegar Ahora por ejemplo en este tiempo Y ahora con las redes sociales sí que te ha llevado a un nivel más básico. No quiero decir que el nivel de la ciencia haya bajado por qué el nivel de la ciencia Es muy elevado pero si te la han alcanzadoY que puedes llegar de una forma mejor. Por ejemplo incluso los niños tienen una forma de llegar… por ejemplo el otro día Fueron al CosmoCaixa Es una forma de llegar la ciencia que es fácil Y te lo ponen fácil incluso ellos ahí descubren Le reloj lo del no sé qué. El magnetismo, pues eso lo ven Y es una forma fácil de llegar a la ciencia. Y teniendo en cuenta que la ciencia es todo Porque por ejemplo cuando mi hijo me pregunta ¿ porque esto es así? Porque es esto ¿ y esto porque donde sale? Sale de aquí De la ciencia el movimiento El por qué los dinosaurios se extinguieron, ¿Porque eso es así y no de otra forma? O sea todo es base de basado en la ciencia Es algo que tiene que estar normalizado y estar más a la mano. O llegar más fácil.

Diana: A veces te das cuenta que te lo venden en casi todo. Yo por ejemplo me he cambiado de colchón a hace poco Me parece que me he comprado ciencia por un tubo. Tal material tal material tal material. Y si tienes una hernia discal tan material material Pues acabas dices pues acabo de hacer un máster. Hasta en la compra de un colchón Hubo ciencia.

Investigadora: Aparte de lo que estáis diciendo del CosmoCaixa…

:Esther: nada más porque estuvieron la semana pasada.

investigadora: Qué otras iniciativas conocéis que puedan concienciar de la ciencia? ¿ Qué otras iniciativas pensáis?

Esther: a mí me gustaría que hubiera…. por ejemplo aquí solamente hasta el CosmoCaixa. Me gustaría que hubiera más sitios más específicos. Que está bien pero a lo mejor hay otros niños que les interesan más otros temas. Por ejemplo a su hija todo lo que es las célulasPor ejemplo a una niña de 8 años muy difícil que le des un libro y lo entienda.

Silvia: por ejemplo el otro día me dijo quiero matar virus con bacterias. un poco difícil me dije.

Esther: una forma que ellos puedan interactuar más Sitios o lugares donde ellos puedan ver De forma más visual. Más práctica .

Silvia: tocar y hacer

Esther: exacto. tocar y hacer Tú le explicas pero al final no saben si acaban de ser una célula o Si la célula se reproduce por qué Se junta la mitosis la no sé qué . Claro le explicas pero para ellos es más visual El juego meterse en algo más visual. Que ellos lo experimenten y lo vean. En este aspecto sí que veo que la ciencia falla un poco . No es la ciencia sino la aplicación de ella. A ese nivel.

Silvia: no tanta teoría sino más práctica

VIctoria: El Museo de las Ciencias y Artes de Valencia . Tendría que ser algo parecido a eso pero aquí Que yo he estado con el mío grande en el Museo este Y es brutal. Estuvo todo el rato con los ojos abiertos. Puedes juguetear, puedes hacer de todo Lo que quieras es una pasada.

Esther: es que si estuvieran seríamos más conscientes los niños y nosotros de la ciencia . Estarían en todos los sitios y en todas las casas Y qué se necesita para todo . Es algo básico es como las matemáticas . La ciencia es la base Sea esa es la forma es de intentar que sea Más manejable, Más cercana.

Victoria: más cercana ellos

Esther: si . No es eso de la agencia está activa y ya está.

Silvia: me dijeron que fomentarán Creatividad y ese querer saber. Pero claro busco y no encuentro Cómo fomentar. por ejemplo ahora para reyes. Le pregunto y ella quiero esto esto esto y esto. claro que hago. Es que no encuentro nada qué hago el juego ese de Cifesa. Y con eso no hacemos nada. Que ella claro pero mamá es que me ha pedido un microscopio. Claro hija de dónde saco yo este microscopio

todas las demás: Sí que encuentras en Barcelona así que encuentras pero valen una pasta.

( hablan todas a la vez)

Esther: yo por ejemplo cuando me ha preguntado mi hijo lo que le he puesto era “érase una vez la vida” . Dibujos de érase una vez la vida. Más básico para que tendieran el riesgo sanguíneo el.. Si son dibujos pero en cierta manera te lo explica. De forma básica pero lo entienden. Es algo didáctico.

Investigadora: y vosotras tenéis algún …?Porque os lanzó otra pregunta Qué actividades o iniciativas creéis que os impulsa a vosotras a participar en la ciencia.

Hayat: Participar más y podamos ayudar a nuestros hijos.

Investigadora: pero qué cosa te hace a ti participar.

Esther: vale te he entendido ahora la pregunta .

Diana: si complicado.

Victoria: algo concreto:

Mariana: si algo que te haga participar

Investigación: Por ejemplo yo encontrado gente que El otro día no mujer que tiene enfermedad x si participan en la investigación con Bellvitge. Refiero a esto o qué es lo que te hace participar. No es muy común ya os lo digo

Esther por ejemplo yo estoy en un grupo En una comunidad de mamás Porque mi hijo tiene problemas de enuresis. Hablamos y miramos diferentes maneras de solucionar el problema, Mamás que dicen pues mira me estás y me ha salido y Este producto no me ha servidoPues mira estatal médico que ha colgado tal. Claro participo porque me lo leo me lo estudioVoy al médico de cabecera de mi hijo y le digo Mira ha salido esto qué es estoEso me va bien esto no me va bienPara mi niña le puede funcionar esto esto no le puede hacer que hacemosLo caro es algo que más que te implique a ti. Claro porque yo tengo un hijo que tiene ese problema.

Silvia: yo claro estoy perdida. Que yo sé que a mi hija le han hecho antes muchas pruebas Muchas, la inteligencia la tiene muy alta pero tiene TDA. Claro no sé por dónde empezar….. venga Sara 5 minutos. Claro yo quiero algo que pueda ir y diga mirahija Esto se tiene que hacer así o así o así. Que no te más entusiasmo que note más enganche. Ella no es de tanta teoría.

Diana: algo relacionado con la ciencia qué es lo que la sostiene con más atención no

Silvia si.

Investigadora: las demás alguna iniciativa que…

Esther y Victoria: es claro es algo personal ( hablan todas a la vez).

Investigadora: Bueno yo os tengo que de cir que he venido para que participéis en la ciencia. ( se rien)

Investigadora: de las acciones que me habéis dicho ¿ Cuáles conocéis qué potencia a los niños o a vosotras Involucrados en la ciencia Hacer lo que sea María talentos de la ciencia ? Mucho pasa con niñas o sea que si tenéis niñas pues comento a las niñas en la ciencia ….) programas que impulsen en las ciencia.

Silvia: las becas. Es que son dos uno para uno y otro para otro. Si becas para eso sí.

Victoria: el mío concursos de matemáticas. En el Instituto hacen y siempre vamos.

Diana: ciencia en acción no a ver cómo lo recuerdas.

Victoria: sí sí en Ciencia en acción , también puede ser.

Silvia: pues eso concursos pero más científicos

Esther: casales

Diana: aquí antes siempre pandemia participamos con Yogo, Actividades de robótica Mobile.

todas: si en el móvil

(hablan todas a la vez y de cosas que no interesan para la investigación)

**Investigación: Os lanzo otra pregunta: conoces alguna política que Cursa en el conocimiento científico.**

Todas: No. Ninguna

Victoria: los I+D lo tienen un poco abandonaditos . Pero a ver abandonadito tal. a ver en la empresa de mi marido , Él trabaja en bases de datos Y porque es un japoneses y allí tiene muy implementado los I+D . Aplica anímate y busca en institutos Mi hijo mayor ha hecho muchas cosas con la empresa De robótica de tecnología De cualquier cosa. machaca mucho EL i+D . A ver al principio lo enfoca mucho para individuales para los hijos de los trabajadores Como un incentivo y muchas veces los hijos de los trabajadores han conseguido becas. Pues que se les machaca mucho con el I+D.

Silvia: pero claro entonces ya es un grupo un grupo cerrado.

victoria: no pero van a los institutos también. Ya te digo porque la matriz es japonesa

Diana bueno política no

todas: no

Se acaba el grupo.

### Teachers

**How citizens benefit from scientific research**

Complex question. Need to focus on what we mean by science. And why are we getting the public involved?

There are differences – for example between hard and soft science. Some science, such as medicine, has a human practical value. People can see the benefit.

Social media is like that expression a stick has two ends! It provides easy access. People can access and put their views out there. Also for scientists it can be a help. But also how scientist are exposed to the public through it. They need training on this. Scientists are not used to this.

**Citizen awareness of the impact of scientific research**

Hard question. How do we put in public domain as teachers? Many people do not believe in science. And many do not understand the scientific method.

Much will depend on people’s belief in science.

The example of illicit drugs and pregnancy is a good example. Would it pass the ethics committee and if it did, should we share all the information with the public? Does it have a negative impact and if so, how this is translated to mothers?

The sputnik is a good example. It is partly about the science behind it but also political for whether it is approved by the EMEA.

Showing the social impact of science is important.

Everyone has an opinion. However, this may not help in encouraging more participation.

**Awareness-raising initiatives succeeding at engaging citizens in scientific participation, including the Open Access movement**

We need more action research. Get people involved in more research. This will encourage them to do research.

Difficult to include all science in the curriculum. The example of climate change is too broad.

Think about a restaurant. You do not need to understand all the science and processes of a restaurant or food to enjoy what you eat.

However, some people are interested in this too so need to identify and encourage.

Focus less on research results sometimes and more on the methodology.

**Awareness-raising actions that foster the recruitment of new talent in sciences**

Science is very competitive. In fact, you want to ensure competition so it is hard sometimes to make it more open to the public.

Are they decent places to work in? This needs to be targeted.

We need positive action higher education may be open to everyone but it depends where you are and if you all take it.

Perhaps we need positive discrimination, such as legislation, to enforce change.

**Policies that promote awareness-raising actions and citizen engagement science**

A lot of autonomy has actually been taken away from institutions.

There is a role for legislation though.

### Students

Moderator: We have already introduced ourselves and I think we can go on to topic 1. So, the first topic is how citizens, how people, how citizen benefit from scientific research on education and I know this is might hard to understand so some other questions that might help us think is… do you believe citizens benefit from scientific research in general? Like, do you believe we benefit from scientific research in medicine? In science? In biology? In biomedical sciences? How do we benefit? Maybe this is a good start, but it is not actually what we want to discuss. We want to discuss if we benefit specifically from scientific research on education. For example, I am doing a PhD study how I can teach to minoritized students, black students in the US, Roma students in Greece etc. does this have an impact, a benefit for society? For citizens? Or is it something I just do because I enjoy it? And if this is hard for you to think, maybe you start also by thinking how was education some decades ago, is it better now? Have some things changed? And why they have changed... Maybe research has been a part of this changing. So, after of all these questions, I will now stop presenting my screen and Assistent Moderator 1 will paste all of these question in the chat. Would you like to write something in the chat so I can make sure that everyone is able to see? You can write something such as okay or your name.

So, you have these questions here and now we can start talking. If anyone has not a complete answer but even a small comment or anything, so we can have the discussion start...

would you like maybe to start from the easiest questions? Do citizens benefit from research in general? From medicine research for example? Maybe also at this point you can also turn on your microphone and say whatever comes to your mind. A single word or sentence…

I am thinking, for example, we usually in our everyday life we use pain killers when we have a headache or when we have a disease or now due to the covid situation many people die, and we are able to have access to vaccines etc. So, just take your time, read the questions and whenever everybody is ready, you can say something.

Kostas: Υes, so, yes, I think we need the research in everyday life because if you take for example the smallest think a bottle of water, let’s say, they do many research of what kind of ingredients, what kind of filters they will use… so, yes, I think it’s very, very important because with that we can make improvements.

Moderator: Yes, so, I get what you mean. For example, I am able to drink this water, but in order for me to have access to clear water for me to drink there has been some research and work behind this.

Yara: Yes, I think what I started thinking about was the “…12:50” [dutch word] we have it in the Netherlands and as a researcher I do believe that research is important for citizens and that it can improve our lives. For example, the [dutch word] I know that from research, teachers in primary education are often like prejudiced by how they see children. For example, they have met their parents and they’ve seen their report cards from previous years and they often have like some kind of image about the child and his capabilities. And in the Netherlands, we have this [dutch word] that was designed by educational researchers that kind of measures somewhat objectively what the child can do and what level of education is most suited for the child. And it’s often the case, if I am correct, that the teachers estimates it lower for some children for example from working class families. Then the [dutch word] will show. So, due to this test, we can create more equal opportunities somehow for these children. So, I think that is one of what research can do to give us a more objective measure of for example an education of what someone can do.

Moderator: Yes, so, if I understand correctly, you say that citizen and society benefit from educational research because it helps us reform the educational system in order to meet goals of equity, social justice and include all the children. Right? I saw a hand… Lucas?

Lucas: yes, I think research is the base for societies to move forward. Cause I think if they do no research, it kind of stops. And I think it’s also important for like countries and like the societies within the countries to move forward, because if for example would stop doing research now, we would just like stay the way it is right now. With research to give answer to daily life problems, access to water, or global warming. Ehm… yes. I think it’s important for the society in near future, but more important for the society if you look, I don’t know, in 20 years from now. So, I think it’s like the base for society to move forward. And maybe get us many things as possible like to live a livable life with access to water and electricity and everything you need to survive.

Moderator: So, I thought I saw Julia nodding when Liam was talking so I am guessing that you agree. You share this opinion?

Julia: Yes, I agree especially on the part where he said that its so important for society to move forward because what I was thinking about is that a lot of decisions that are made that have a big impact on the whole society and on a person on an individual level… well, when it’s like based on scientific research you have a lot more certainty that you make the right decision instead of looking at opinions or… basing it on something else than scientific study. I was thinking about the corona crisis. Because of the scientific research that is done we know that social distancing works and that vaccinations can help and that is what I hope policy makers use to make like really big decisions about everyone in the country. So, if you don’t have scientific knowledge, you don’t have anything to... how to say it? You don’t know what to do, I think. It’s a lot of situations really important and on an individual level you have to like to decide whether a child has to go to a special needs education or not, then you have to base that on test that are valid and on scientific research that it’s better for a kid to do that because it has a lot of consequences for someone, so I think that it’s really important. Haha, that’s about it.

Moderator: So, scientific research does not only benefit the society as a whole but also if you have scientific literate individuals and citizens, it makes their lives easier because they know better how to choose whether to do the vaccine or not, to make decisions about the life that they benefit from. Something else you like to add?

Julia: yes, one thing. I think it is for me, personally, I found scientific research really important for me to decide what knowledge I have to take seriously and what knowledge I don’t. So, I think that’s the base.

Moderator: yes, so you get to better evaluate some things that we label as “common knowledge” but now we have the means to actually see if this is valid or not because we can now do research on that. And maybe something more specifically about educational research? (…)

I was thinking that for example can you maybe see any differences on how education used to be some decades ago and maybe how education is now? Ehm, at least for those who come from Greece it was way different decades ago and this has also been the result of science. Maybe at this point I can also share my screen again and share some scientific evidence. Hope you can see. So, as the Allinteract project we did a research which is called social media analytics. That means that we went to social media platforms, specifically now I am going to talk about Facebook. I believe that you are familiar most of you with Facebook platform. So, we extracted thousands and thousands of posts from pages that were about teaching, and we codified it and analyzed these posts, and an example was that teachers in these pages, they share resources about science education ,mathematics education, they share strategies for learning, they share valuable things, that usually come from their expertise that they gained through their bachelor. And in their bachelor, they studied things coming from scientific research on education. This knowledge comes also from their master or from a paper that they studied somewhere, and you can see that there are also supplies and materials. So, these teachers benefit from science because they gain some strategies, new strategies, and new ways to teach and of course the children benefit from scientific research because now there are many different ways and many tailored ways to teach different children, different ages, in order to have the best results. And other examples are studies related to equity. My PhD is also part of this big literature and there are many people that are historically excluded from science like black people from the US, poor people, women, LGBTQ+ community etc. usually the educational system privileges the mainstream students mostly white, mostly middle-class, mostly able-bodied and a lot of studies are being conducted in order to find ways to include and to achieve success for all of the children and all of the minoritized excluded identities. I don’t know if any of these two scientific evidence applies to your life at any point if you have something to add or a similar experience. Oh, okay, I see Lucas’s hand.

Lucas: hm, I think you need to separate especially like from my experience, you need to separate school education and university education. Because I think school education in Germany hasn’t really changed in recent decades or there have been just very minor changes. So, I think when it comes to education in primary and secondary school, I think there is less research implemented. I think there is research done but there is less research implemented than for example in university studies.

Moderator: Aha, but you believe that if maybe the research was actually implemented or if there were more policies coming from the governments and this research would actually be implemented, do you believe that the students would benefit from it?

Lucas: Yes, I think definitely because in Germany for example the system is pretty old and the research already found out that this is not the right thing to do because we separate like after some grade and like… if you were like to go to the school where the “smart” people go or to the school where the “stupid”-not so smart people go and you already… they already put you in a category . but you are not in an age where you realize that okay, if I don’t study, I would go to the …? School, I won’t get the right education. So, I think there need to be more things implemented. I think also in terms of... there are so many different developments of children and to make…yes make for the children and life afterwards because it’s not really related to what you see afterwards … how do I apply for a job? There are things at least in Germany that you don’t learn at school and are really important

Moderator: Hm, there are in fact many studies that investigate different educational systems and how alternative scenarios or everyday knowledge or they are trying to change the curriculum etc. but his, what you are talking about kind of fits in topic c, where we will talk about policies, so just we can now pause for that and continue what you are talking about when we go at topic e, I think. So, unfortunately, I need to move on in order to have time for every topic. And now we are going to topic b. and topic b is citizen awareness of the impact of scientific research and now we are not just talking about the scientific research on education, but we are talking in general about scientific research and mostly about the social impact of scientific research. If you want to say an example about what is the difference between the social impact of scientific research, I am thinking of an example. I don’t know if it’s completely accurate but an impact of research would be the painkillers for example but the social impact of scientific research maybe would be a very small price of painkillers so everyone can have access to them. And do you believe that we, citizen, are aware about the impact of scientific research? Do you believe that we are able to recognize that in order to have this clear water some scientific research has been conducted? In order to have different policies because in many countries maybe things don’t change as quickly in school systems but there are many after school programs conducted in order to include more students in science, or mathematics, etc. so, do you believe that people recognize the connection between the solution they enjoy and the discovery that led to it? I think I heard a hand so I will stop presenting, let you speak and then I will search the scientific evidence.

Despina: Yes, well, regarding this I thought about something while you were talking. Judging from my experience for example before attending this premaster, I never actually took some time to think who is doing the research. I mean, I knew that somebody out there, I don’t know, companies, governments, does the research. But I never actually made the connection. Maybe I was always very busy or bothered by other things, more important, I don’t know. I think depending where people live, maybe the country or depending on the stage they are in their life or depending on the educational background, I think some people are aware and others are not so much aware. One year ago I was also not aware about the whole procedure of the PhDs, the research conducting at the universities, how they help with the scientific research, people, society and evolution. For example, now I started making the connections. I don’t remember the next questions, oh, there they are. So, I don’t think everybody Is completely aware, not at the same degree about how research is conducted and by who. Regarding the next questions, I don’t think everybody recognizes how for example this solution now exists, for example like the ones we mentioned before about the covid, about the vaccines, about the water. I think that everybody knows that, hey, somebody is behind, but I don’t think people analyze the steps and the procedure.

Moderator: okay. Would you happen to know some actions that help raise awareness about the things we enjoy in everyday life, we can benefit from that, we can benefit because scientific research has taken place and has been conducted and I am aware this is a difficult question. I am also thinking about what actions could raise awareness about that. I don’t know if anyone has something to say. Meanwhile, I can share the other evidence… but I saw a hand. Julia?

Julia: Yes. Well, I totally agree with what was said just now because from my experience what I heard a lot before I went to university was that everyone go to university, that you’re not doing anything, you’re just reading and writing and that is not beneficial for society because I still sometimes get it when I am back home. Like they say like oh why would you go to university why would you do that? You’re not benefiting anyone, so I don’t think that a lot of people are mindful about that everything that is around them stems from some scientific evidence and that that is the reason why everything is so good for us now. And what I was thinking when I saw the question about “what are some initiatives or actions” I was thinking that they might not be aware because it’s all so in the background, the whole scientific world. You see singers, you see on the street builders and that is really in your face but people who are in the scientific world, they are all so far away from the vision from everyone in society, so I think that a solution would be to make them more in the spotlight if you know what I mean. So, people see what they do and see what kind of work they do because when I tell my parents what I do in my internship, it’s like in a research group in a senior secondary education they are like “oh, oh, that’s really interesting, never thought about the fact that somebody has to think about those things”. It’s like they take it for granted that it’s all there, the knowledge and how it works. So, I think that... yes, that’s pretty much.

Moderator: Its basically like you’re saying that we need to advertise more, or the correct word is to communicate more the scientific research and maybe find solutions and ways to raise awareness and also engage people and bring them closer to scientific research. I saw a hand…

Despina: Yes, for one minute I raised my hand when Julia was done talking because I wanted to say that I really agree with what she said that the only times I learned something about research was when I read a newspapers or when I saw something on tv stating “this university found this” for example. But if you don’t read the newspaper or if you don’t watch the television news then you don’t actually get to know who did research. Like Julia said, they are like at the background, in the shadows. And I think that they should be more credited with their findings cause research is hard at the end. And that’s what I wanted to add.

Moderator: Thank you. And Yara has also raised a hand.

Yara: Yes, I also agree with what they said, and I think that especially in the news and the newspapers sometimes they just say “oh, research finds…” and that’s all they say about the research and then they go immediately to the results so maybe also make people understand more what research is and how research is conducted. I think that would help maybe for the awareness that is actually the job that people do, its not just some magic that generates random results.

Moderator: Yes, I also see another hand. Yes, Julia?

Julia: yes, I would like to add that one of the things why people are also unaware of it is because for a lot of people and I know that because of my environment. They think “oh, its university, there are a lot of smart people, and I don’t want to like get into scientific knowledge because I don’t understand it, it’s too hard for me. They are all scientists, so I don’t have to do anything with it because I won’t understand anyway”. And it’s like a really big threshold for them to even think about “oh, let me read a research paper or let me think about that” because I know from that experience that people are a little bit too afraid, or they see that the threshold is too high to even consider that they have something to do with it themselves in a daily life. So, I think that is one of the things why people are not aware of it, and they really don’t feel like getting into that subject at all.

Moderator: So, I… if I understand correctly you say that there is this stereotypical image about science and scientists, that they all look like seldom cooper for example from Big bang theory and they are something like a super smart guy, something that is not relatable to me, and it’s a great gap and so maybe some initiations or actions that could raise awareness would be actions that could show how science sees and go beyond that stereotype that scientific research is only for a few extra talented people which is for sure not the reality. Its just a stereotype but maybe… can you maybe get to think of some actions that would allow you to get to know scientific participation and come more closer to the procedures or even participate? Have you ever heard of anything? And this way maybe its time to move to the third topic because this is exactly the third topic. But before that I also want to present the scientific evidence related to the second topic. As I said before, we did some research with social media. So, besides Facebook we also did some research with Reddit. I am not sure if you are familiar with Reddit platform, I didn’t know it before but its something similar to Facebook. So, there you can see many debates of the uses regarding several stuff but also regarding scientific articles and scientific research and their importance in daily lives. So, an interesting example is that at some point some users debate about the effects of drugs and cannabis in pregnant women and their babies. And the interesting is that someone would state that cannabis is hurtful for pregnant women and their babies and then the other users would not just believe that. They would ask for references, they would ask for “how do you know that? How can you prove that? Have you read something? Do you have percentages or the results of some research?” so, that is a good fact because it shows that some people… it directly relates to what Julia said before... that if the individuals are aware that we have scientific research and we can benefit from it, they can use it in everyday life to evaluate the information they have dealt with. I don’t know if you have anything relatable to this that you at some point you have felt the need to ask for a proof or a reference of something that someone said to you? Maybe in a debate or an argument. I heard a hand.

Yara: Yes, that’s me. I just thought about my mom because she was sending me all these videos about the vaccinations and that you might get infertile when you get one and she was like “are you sure you want to do this? “ And was really towards my mom and like “okay, I know that you saw this but where is your evidence? You know, these are just people claiming this and this. If I just… I don’t believe that its true without any scientific evidence. So, that’s when I kind of asked her if she had validated her source.

Moderator: Hm, and maybe if you would also have access to other scientific results and maybe provide her with other resources that so the painkillers that we use every day have higher percentages of us having side effects and they are actually in terms of possibilities are more dangerous than the result maybe this conversation would be different. Maybe your mother would be able to evaluate again the information she receives. So, I am just going to move to the third topic. Topic c… this is about actions and initiatives that succeed at engaging citizen in scientific participation. Before we talked about “do we know the connections that there is some scientific participation behind and the benefits? And we all agreed that sometimes we are not close to science or that science is something hidden or far away from us and that it is conducted from not “normal” people. And, so, which initiatives or actions would be successful at engaging us citizens in scientific participation just as we are doing right now. Right now, you are actually part of production of scientific knowledge.

Assistent Moderator 1: I think Liam and Lucas have something to add.

Moderator: Yes, I would like to hear Liam.

Liam: Yes, I was just thinking cause my friends at home do a lot of scientific research and they said how they got into it was that... there was a lot of marketing that they did and there was a lot of social media posts. That’s how they actually found it. So, I think that it’s the case of how you communicate like… I think that people would be willing to do scientific participation but its kind of in the background for a lot of people you know. So, I think if you can pay stuff like marketing or do stuff on social media, I think that’s a really good way. Because I know that a lot of my friends do it and that’s how they got into it themselves so…

Moderator: Yes, and I think someone mentioned that in education research we find many times, and in interdisciplinary research, both psychology and education, we find that interest and motivation is something that… it’s a very interesting case because sometimes you are not interested in science for example the whole society says in a stereotypical way that you don’t belong to science, you’re not going to be interested…

Liam: Yes, exactly, exactly

Moderator: If the culture you’re representing is totally different that the culture you think a scientist must have, then you are not going to be interested, it is not going to be relatable. So, do you know maybe some actions, do you maybe have participated in scientific research in some way like phone calls, I don’t know, what else? Maybe when you were students, younger students, after school events, or science fairs, or anything that it was designed to engage you, to bring you close to science…

Assistent Moderator 1: I think maybe Lucas has to say something about it.

Moderator: Oh, yes, I didn’t see the hand, sorry.

Lucas: yes, I think like the most common way from what I saw is like paying people to participate in research. I think that’s especially in medical research. I think one of our friends did it last year, it was from UMCG(?) here in Groningen but he did research on different medicines. I think for those kind of research, I think they pay people to do it because they are interested in the outcome. I think for those kind of researchers it’s a lot about like giving people something to do it. But I think that other than that you need to be connected all like interested yourself in the outcome and I think it’s a lot of how you can motivate someone to participate in research even though a person thinks probably he won’t get an outcome of it. So, I think therefore its quite difficult because you give your time and if you don’t receive a payment, you don’t see that you can gain something yourself especially like these days, where everyone is pretty busy, I think it’s quite hard to get someone to participate in voluntary research.

Moderator: Yes, that is actually a discussion that takes place and usually and until now, so far, it was considered normal and ethical to provide compensation for someone’s participation in research either for a voucher for coffee, money, or other things. Now, there is also a new way that says that since research is something that we all benefit from, we should make -we as scientists- should find a way to communicate science in a way that everyone feels as a part of it and everyone will want to contribute to it because they do benefit from it. But besides this fact of the compensation, do you remember in what ways they engaged them in science? They were part of a project? Did they also do something in order to attract other people to engage in science or to follow a scientific career or to discuss it with other people and give knowledge to other people? And not only Lucas, I mean, have you ever as kids maybe participated in summer school or something? Maybe this is the point to provide the evidence. It might give you some ideas. Ah, we also didn’t talk about the open, that was my mistake, we should also talk about the open access movement. So, what is the open access movement? We also started talking about that. The open access movement is a movement that wants the results of scientific research the data to be open and free of charge for everyone and a famous example is Wikipedia, which is a free encyclopedia and not only we all have access to the knowledge that it gives, but we also can participate in the creation of new knowledge because we can all go in the Wikipedia and change something that it says, “add more information”. And there is also the open access movement in scientific papers. I don’t know if for your bachelor you had to do some assignments, if you want to read the scientific paper usually you need to pay a membership to the journal but now the trend is that we want every paper to be free of charge because we want citizens to be able to have access and study the paper and maybe even use the paper for their daily life or for producing new knowledge when they are doing an assignment or a master thesis or a PhD etc., and these are some other actions that are trying to engage and attract people to participate in science. We don’t have to read this, it’s just a reference. Stanford University they did a 5-week residential program for low-income high school students and there are also many other similar initiations that are very similar with the fourth topic. So, we are also going to discuss more initiatives like these for the next topic. And do you want to add something related to the open access movement before I move on to the next topic? I heard a hand.

Julia: Oh, yes, that was me. Haha. One thing I was thinking about is that the Wikipedia for example, the language that is used is a lot less like it’s not so hard like a language that is used in scientific papers. So, if people do not have a background in the scientific field, they can use the Wikipedia page and understand what it says. So, I think that the language that is used is really a big component about whether people are going to use the scientific knowledge or not because when it’s too hard they won’t understand, or they might feel like… yeah… that it’s too much.

Moderator: Yes, and there is actually a section in science education, and it’s called science communication and its responsible for communicating science for the population that is not educated in scientific education, so they prefer to communicate science but not in the difficult terminology. And this is usually the field that raises such initiations in order to bring citizen and scientific research closer. So maybe we can move on with the next topic because it is quite similar. Now, the other topic is again about actions and initiations but this time the purpose is not to engage citizen in scientific participation just like the case that Lucas mentioned but these are actions that foster the recruitment of new talent in science. I mean actions that want to attract people to actually choose science as a trajectory, as a course or a major. And I am going first to provide the evidence and then you can share how this applies to your life and if you have any similar experiences. So, in social media again, in the research we did with Allinteract we found many different posts that they talked about science fairs. Science fairs are activities that are organized not only in school, after school, not only by schools, but also… I mean in Greece there are also organized by Cosmote for example or other organizations. And the goal is to promote interest in science for very young children, elementary even younger, high school etc., and then when we go to the university level there are also scholarships that are offered to promote the recruitment of talent in science career. And the interesting thing is that in scholarships sometimes scholarships are also specifically designed to include minoritized and traditionally excluded people. Let’s say for example scholarships for women scientists from Africa or for young poor women etc., and of course in the media we can also see women scientists. This is just an example. We all know and it’s not just common knowledge but it’s also scientifically proven that science is a male-centered major and we usually think of a white middle-class or upper-class man, usually wearing a robe and seems like Einstein. This is a stereotypical image we have of a scientist. So, there are initiatives of women, black people, Muslim women talking about their experiences. So, I don’t know if you use social media or maybe you have seen posters somewhere or emails from your university. Do you have any experience with actions that are trying to attract new talent?

Yara: I remember from high school that we had like a day when all the women, all the girls were able to participate in some kind of a women’s day in specifically to technical youths of research because there are some, they are underrepresented. There is mostly a male dominant field, and it was all of the girls were able to join this day for free and go to different companies to learn about what they did, and we could skip the classes of the day just for this day. I didn’t participate myself, but I know that they offered it to us.

Moderator: do you believe that they could have done something else, something better in order to also attract you?

Yara: Hm, yes, maybe, I don’t know. I didn’t have like a technical program already so I had choses my courses and it wasn’t technical at all so I think that maybe they should have done it earlier before we chose the courses. Because to me it was like well... all of those fields were already closed off, so it didn’t feel useful to me because I didn’t have the opportunity to follow those professions anyway.

Moderator: and earlier in your life do you believe that an action could have maybe even make you to consider choosing a different trajectory not even succeed it but maybe…

Yara: yes, I think maybe just like I mean I did end up in science somehow, so I guess my interest got sparked but maybe just more like I remember the things I liked about science as a child or adolescent, I think it was mostly about experiments.

Moderator: so maybe if an action had more hands-off activities and if it was less theoretical…

Yara: yes, those kind of things I really like to just kind of to put things together, in different color, or something exploding, I really like those kind of experiments. So, I think those kind of things where you can see what happens that it might awaken some interest but that’s for me. I don’t know if anyone else can relate to that.

Moderator: Yes, can you think of something that could maybe make you a little bit more interested in science as a course, just to initiate more interest in your daily life or even make you choose this trajectory?

Giannis: So, I think, I remember in for example high school and elementary school there were like tournaments about physics, mathematics, and that kind of stuff. So, many kids who were very good in those sciences, those kind of courses, they really liked to take part and also, I think I have a friend at the university, they also took part in a tournament about formula one, so it’s very good initiative to attract younger people with that kind of stuff, tournament, and that kind of stuff, because we give them motivation, I think.

Moderator: yes, okay. And maybe start by exploring things that are more closely to children, things that they enjoy to do, things that they do as a hobby, maybe combine them with physics education or science education.

Giannis: on the other hand, they exclude the rest of the kids, who are not very good on those sciences but at least you know, there is something.

Moderator: Would you believe it would be more successful if they had like an afterschool program that would… that the target population would be students that had no relevance to science and then we just start from the beginning, we know nothing, we take nothing for granted and we start regardless of your background, regardless of your knowledge, we get to experience a little bit of science.

Giannis: Yes, absolutely, for sure. It would be better. If... not only after the school but during the school, I think.

Moderator: I think I heard a hand. Yes, Julia?

Julia: yes, because I was thinking about the last year of secondary school, I think Yara knows what I mean with “….??”1:07 but I don’t know the English translation. It was mandatory for everyone in the sixth grade to like do your own project so you could do it alone but also with someone else. You could like think of a research question and do the research yourself, not on a scientific level of course, but you got to use the resources and you had to like read all the articles and the books and then you had to come up with your… it had to be not only the experimental but also the literature, what you did and then at the end, when everyone was done, they had like a market place in the school where everyone had to present their own project. So, we were able to see what everybody did and that way you also connected what they did to what you actually could do yourself. Because it was not a scientist who did it, it was you, yourself who did some kind of research. So, I think that was the first time I connected the idea that I could be a scientist myself.

Moderator: so, this was successful, very successful because of the fact that you were actually participating in it, organizing a project, taking the responsibility, and having your own design and results etc. yes. Assistent Moderator 1 how is the time? Should we move on or?

Assistent Moderator 1: Yes , I think we should. If everybody agrees and has nothing more to add.

Moderator: Then maybe we can go to the last one. Here I had more scientific evidence of studies that they had some initiatives to attract women in science engineering and technology and some about cultural minorities, indigenous populations. So, the last topic has to do with policies. Policies that promote actions in citizen engagement in science. Now policies are documents and results coming from the government or from organizations and my questions would be… do you believe that there are policies that promote actions with a goal to engage people in science? Do you know any policies and if you were a politician what would you like to propose? And I am going to share first the scientific evidence because it’s kind of a hard topic. So, governments require universities to be more transparent regarding the results basically they want them not to hide the scientific results and give it to the public, pass it to the public because it belongs to the society and the society should be able to have access in order to benefit from these results. These are some examples from policies and also the European commission promotes scientists to engage in public communication for example we are the Allinteract project, and we have to conduct some research, okay, but part of the agreement is that we need to do things to communicate in public what are the results of this research. And we need for example to organize conferences, or publications, maybe have some social media and then announce our work in the social media, maybe it’s more attractive for younger ages. We have to organize events and maybe we can also, we won’t fund research projects, but the European commission funds many research projects in order to promote and communicate the results. So, I know this is the most difficult, I am not sure if I would have anything to add. I am going to say again the question is do you know any kind of policy or maybe what kind of policies you would like to propose? Have you ever been part of a conference or an event where someone communicates the results of a research? (bell) Yes?

Despina: Generally, I don’t think there are enough policies to ensure that citizens participate in science. From my experience. I never heard or understood something that would make the citizens wanting to engage more. Maybe something that I could think like if these policies could come from the governments etc., maybe researchers at the universities maybe they should be obliged to… how can I say it, to use the citizens in one way or another, I don’t know how. For example, right now it’s the focus group, I like the fact that as a citizen I participate and that I contribute somehow. Maybe with this way or another, scientists or researchers could make citizens participate and maybe they should show to the government that they use this policy like we use these participants. Maybe if it was regulated for example that every research or every department should engage citizens at research, something like that.

Moderator: Thank you Despina. (bell) Yes, Julia?

Julia: yes, I have a question actually. because I was thinking that these policies when you make them for the social sciences, that it is a lot easier for them to include the people and maybe use focus groups or interviews, but I was wondering how can you for instance with physics, how can you… is it beneficial for them and the participants themselves to participate in that kind of research? Because I would not, I cannot think of a way that I can participate in such research.

Moderator: Kellydo you want to comment on that?

Despina: Yes, regarding that for example I agree I would not take part, I would not be interested to take part in let’s say a physics research, but I think that I would be interested in things concerning me or my background. So, I think that depending on the subject of the research, there would be people that would be interested. Like future, like students now that love physics or those who want to study something about physics, or they work at this field, and they want to evolve their knowledge and their background. So I think not everybody is eligible for taking part in all kinds of research. I think people should be divided based on their background.

Moderator: Okay, but I want also to clarify that when we say participate in science we don’t only mean participate maybe in the design of an experiment or in the conduction of an experiment. Participate in science also means to know what is happening and share the knowledge that the humanity at this time has and maybe you cannot think of something in physics or biology but what about biology education or sexual education? Would you, as a citizen, like to have your voice heard about what sexual education needs to include in a curriculum? And let’s say for example there are research conducted many times for white people that are also involves facts, that have implications for black people, without including their voice in the research. And I am not sure if I shared this particular example before today because I remember discussing it with Assistent Moderator 1, but sometimes medicine when they studied some disease and the skin disease or hair diseases, they didn’t care to include black’s experience, and this was problematic because these diseases manifest in a different way in black and white people. So, even if black people were not specialists in this case, including them and having their voices heard by saying that what their experiences for example the experiences of their hair, they are experts on their hair or their skin. They can provide their expertise by their daily knowledge and they can provide a new horizon if we only had white scientist for example. Yes, I would mostly like to emphasize the right you have to participate in scientific research in the mean that you can share this research, you can learn about this research in a not strict and scientific way with a difficult terminology etc., because imagine if you didn’t have access in what is happening about the vaccines and the governments just asked you to “you have to do the vaccine” and that’s the end. Without knowing information about death rates or anything. Ehm, and of course, as citizens, we also have to vote at some point for several things and some of these things also include environmental things, decisions that have to do with climate crisis etc. and if we don’t have access to the science behind that, we will not be able to make a responsible vote or way of life or… so, yes participation does not only mean being part as an object in the design or anything, but also demand from the science to communicate you the results and what is happening in ways that you can also understand even if you are not a specialist. (bell) Yes, Julia?

Julia: Yes, I agree with what you said. It’s just that I didn’t even think that all these possibilities were also participating, and I think that this is also one of the things why people might not be participating, because they, even I well I have a scientific education but even I did not even think of all these possibilities, so I don’t think that for everyone is clear that this is possible with science, so yeah.

Moderator: and if I also might add that the policies we are talking about are more about engaging people to maybe choose a science trajectory and this happens because humanity right now has to deal with many global challenges and we need workforce in science, technology, engineering in order to address these problems but not enough people choose science as their major, job, and trajectory, which means more about, that says more the culture of science, the image of science that we give to society and maybe this image is not relatable to many people, so since we need the workforce for science and we need to find ways to attract people and besides that we usually are able to attract just certain kinds of people, certain communities of people while we exclude others so we also need to do additional research and policies to find ways to include all the different communities because diversity is an asset to science. There are different points of view to address problems, and we also want an equal society, but we also want science to benefit from different points of view and different cultures etc. Assistent Moderator 1, would you like to add something? Or does anyone want to add something? Not only specifically to policies but also about actions that maybe if at some point of your life you had experiences an action or initiative that you could relate to science or you could be part of science both as in a daily life or as a major, as a work trajectory. What would that be? What kind of action? (bell) Yes, Lucas?

Lucas: I think it’s important to find the right people for the right research. Find Someone who is implicitly or very specifically interested in a specific topic, who thinks okay it’s something I like or something I am interested in. I for example would participate in those kind of research cause I know it’s something I am interested myself so I am curious about the outcome, I think I could gain something, so I think it’s about marketing it the right way and marketing the research to the right persons.

Moderator: Does someone else would like to propose a possible action that would engage them love science a little bit more and maybe want to be a scientist? (bell) yes?

Julia: yes, I can think of one policy that actually does other things, does not promote the science and the participation. I think that because studying is so expensive now, you have to like take a loan and it’s not really promoting the idea of being a scientist especially if you want to do a PhD you have to study for a way longer time and because a lot of people do not want to take the loan and maybe their parents might not have that much money, I think there is no policy that promotes for anyone to be in science. Even when you are from a lower economic status that is a really high threshold to even consider going to the university so… I think that’s one policy that should be better.

Moderator: and until then. More scholarships and maybe more specific scholarships like for low income, girls from low income, boys, etc. I think we have covered all of the five topis and maybe a closing question would be “if you had to go out and share with one of your friends, your partner, what did you discuss today or maybe what you gained as a new information, as a new idea. And anyway, something that you are taking with you after this conversation?

Assistent Moderator 1: I think that’s kind of related to what Julia said before. She said like “I had never realized in how many ways you can participate in science”. So maybe it’s something like that for somebody else as well. A thought or a feeling.

Despina: I think that what I am taking from this session to process in the next days or time period, is how important citizens are in contributing and engaging in science. Maybe it’s important to come up with ways how they can contribute even more, make them aware. I think that after this session I understood or started to think that people are not aware for the science taking place around them and how they can help, how they can engage more. And maybe this is for future society and policies to take into consideration. Maybe researchers as well.

Yara: I agree with Kellythat it’s interesting to think about it. And I have never really thought about engaging people in science as something to do but I think it’s really important that we do that more often.

Moderator: and yes, I think this is mostly important. Responsibility of the scientists that are working towards communication of science and not so much responsibility of citizens who wouldn’t be… how can they be aware of what is happening to science if science does not communicate it? Something else? Even a feeling like these topics were hard for me to understand or… (bell) Yes, Lucas?

Lucas: I think the thing I am taking from most is that research is something that you can think okay its happening they found this and this, but I never thought that okay there are people involved and that I myself just by contributing in a study or a research can like help people or like help the society to move forward. So, like the importance of, hm, even though it might be sometimes inconvenient, you don’t always get something out of it, to see like the bigger picture of participating in the study and to see like others can help on the long term.

Moderator: Thank you Lucas. Someone else? I could also ask that would you believe that after today you could be a little more mindful or conscious when you hear a statement to check, to evaluate the statement , if the person who provides this information, if it’s coming from research or if it’s coming from their head and would you be more willing to provide a reference in a debate or ask for reference in a debate? (bell)

Lucas: Yeah, I think its ……. 1:32??? Fake news and also like the importance of seeing if someone refers to an article to research like to see and have an idea of how research must look like, cause if you do a study of 5 persons and you find out something that happens to all of these persons, like obviously research has found out. So, I think it’s also very important to distinguish between the quality of research and to like have an eye on research if it’s appropriate or if it’s just there… ?

Moderator: Okay, I saw that the time is already passed, half past 7, so does anyone want to add something, share something, or should we close it and have a little rest? Because I can recognize that there were so many information, new information. So, if anyone doesn’t have something to say I would like to thank you very much for participating. I enjoyed it a lot and this conversation is actually part of producing new knowledge for European scientific project and I want to remind you that there is confidentiality, your personal information will not be shared of course and although the project is actually against of providing compensation because it is with the other view I presented but we as rug university we believe that the participants should be compensated for their time they offer so I know I am able to offer some kind of voucher that the university gives but I don’t know what kind, but I will send you an email like when I find out. Once again, thank you very much. You have been very helpful. It was very nice to see you, meet you and discuss with you . I don’t know if Assistent Moderator 1 and Assistent Moderator 2 have anything to add

Assistent Moderator 1: yes , I would like to thank everyone too. And I think it was beyond our expectations the discussion, so we are very happy for that and thank you, yes.

Assistent Moderator 2: yes, I also want to say thank you. It was very interesting for me to hear all of your great responses.

## Experimental Groups

Experimental groups in education include three focus groups: 1 group with families, 1 with teachers and 1 with students.

### Families

**Investigadora :** (Explicación de la investigación y se elige para formar parte de la ) quería preguntar algunas preguntas, vale? Son muy fáciles y bueno, es sobre todo encajando con el con el proyecto y en temas de ciencia, vale? Y saber un poco, pues que conocéis que no conocéis, no? Un poco para saber . es unas preguntas muy simples y vais, vais hablando. Vais levantando? Es que no vea todo el mundo.

Investigadora: Si sabéis o cómo os beneficiáis en temas del impacto de la ciencia. que la ciencia en temas de educación, no sé si os beneficia eso no lo conocéis o no sabéis bien bien, qué es ciencia o que no. Identificais un poco, qué cosas o se están beneficiando en temas de ciencia un poco para conocer? Si no sabéis no sabéis, eh? No pasa nada.

**Elena:** Yo prefiero que nos expliques XXXXX

Investigadora: porque creo que es un es un poco más preguntas, o sea, : sí, sí, solamente para conocer si vosotros estáis, por ejemplo, en temas de salud, por ejemplo, se lleva la ciencia, no? Y pues yo que sé si la penicilina se ha investigado a vosotras o administran vecino, cuándo estáis enfermos de la educación no parece más exacto, no sé si conocéis, pues yo que sé alguna evidencia científica que : ella se haya dado a lo largo de la historia y que vosotras decís, pues mira, esto nos ha beneficiado, pues la manera de escribir la forma de enseñar a los hijos, la cualquier cosita que vosotras qué creáis saber parte de nuestro conocimiento pero con evidencia científica.

Lucia: bueno, las personas que estamos en el mundo de la educación y a raíz de formar parte de las comunidades de aprendizaje pues. Pues sí porque hemos leído algunas cosas porque algunas cosas que hemos leído de Vigotsky, pues se pone en tela de juicio las etapas de Piaget. Pero más relacionado con el trabajo.

Investigadora: las demás personas no pasa nada de que es un primero en el contrato, o sea tampoco si no se sabe, pues nada, pero por ejemplo estaba pensando en temas..Ya sabemos que a veces con los museos a veces no, porque han hecho cosas para llevar a los críos. Enseñará como muy famoso. Seguro que habéis llevado a vuestros hijos al CosmoCaixa no esté por ejemplo, no se si conocéis más, por ejemplo de cómo se han bancos hecho algo, universidades, conoces alguna más aparte del Museo del CosmoCaixa

Carmen: La Caixa proinfancia es un proyecto que también colaboramos en la escuela, tenemos una logopeda, esta mañana en el cole hemos tenido el museo de las matemáticas, El otro día estuvimos en el Liceu, del Museo de aquí del pueblo. También la Fundación Gasol, en la “cis Fundation también colaboramos. Y con las tertulias también, a veces hemos ido a tertulias dialógicas un grupo de maestras iba a Odisea, lo que decia Teresa de Vygosky, Bien hemos hecho tertulias dialógicas con maestros Que leímos ideal love and NamLa primera vez, violencia cero desde los 0 años, El año pasado pues pues las democráticas

Lucía: no aprendiendo contigo.

Carmen: aprendiendo contigo Claro como decía X desde que hemos entrado en comunidades de aprendizaje pues…

Lucia: somos más conscientes No todos los libros que llegan a nuestras manos Son evidencias científicas. Pues yo antes te decían hay un libro Manual para el educador pedagogo y un tipo que te hablaba en youtube y decías qué bien habla este y después resulta que no son evidencia científica, Sino que es un señor que habla muy bienY que nos envuelve Pero que no. desde que estamos en las comunidades de aprendizaje Mira más al detalle¿ pero esto quién Lo dice pero este en qué se basa? ¡Por qué lo dices?

Carmen: Cuestiones más. Te cristianas más la información que recibes. Hemos hecho un cambio de mirada. Creo que esta es la resumen.

investigadora: ¿ y las demás?

Elena: Participamos en educación saludable que eso también es muy importante

Nerea: Yo por mi parte y por experiencia propia Sí que me visto un poquito obligada a contrastar un poquito, Todo lo que se habla lo que se dice o los panfletos que llegan, pues por temas de salud no, yo he tenido problemas serios de salud, por ejemplo la alimentación saludable, pues para mí es primordial. Pero tenemos que aprender que es saludable y que no es saludable porque cuando vas al supermercado y tú compras un paquete que te pones natural o biológico o no sé si por ejemplo no le das la vuelta iré es la etiqueta, cuánto tiene de azúcar o cuánto tiene de Sal o cuántos carbohidratos? Pues claro, eso hasta que a lo mejor no te ves un poquito porque las circunstancias te han llevado hasta ahí, no aprendes A contrastar y haber que me que no me beneficia o que puedo coger o que tengo que dejar. También es la experiencia y la necesidad a veces lo que te lleva a buscar. Y a enterarte bien y de verdad lo que tú necesitas.

Investigadora: Y estaba pensando también seguramente que habéis escuchado conferencias varias, no? O como os llega a veces, pues eso las informaciones o por la televisión, no sé si en la televisión algunas evidencias, no habéis escuchado, no sé si alguna conocéis alguna.

Elena: también tenemos en el cole muchas familias que Están luchando contra el cáncer infantil . un año estuvimos colaborando desde el AFA. Y también llego muy al corazón porque sí que varias familias habian hecho, no formaciones, pero sí que un aprendizaje que no tuvieron otro remedio un aprendizaje, Porque no tuvieron otro remedio, y eso nos lo trasladaron a las demás familias. Fue muy emotivo y a la vez comprendimos muchas cosas de lo que son las enfermedades raras y enfermedades también como puede ser un un cancér una leucemia .

Investigadora: por ejemplo conociendo esas iniciativas que conocéis vosotras, cuál es las consideráis efectivas, para qué quieres lo que consideréis efectivas? Por ejemplo, la ciencia os llegue o qué? Qué cosas os hace? Que pues eso como explicaba Elena no, pues el hecho de que una asociación no estemos trabajando con el cáncer infant, qué es? Es lo que ayuda? A que a que vosotros recibáis esa ciencia o ese conocimiento?

Nerea: Bueno, aparte de la escuela, por ejemplo, ahora es todo está muy bien yo de verdad que lo disfruto mucho y siempre que puedo intento colaborar de fuera también nos manda algunos correos diciendo dónde hay alguna conferencia o dónde hay algún evento? Y bueno, yo básicamente ahora recibo información por parte de la escuela tampoco es que me puedo mover mucho más allá.

investigadora: las demás?

Carmen: algunas mamás que están aquí han vingut abogada a la casa del mar y han escuchado conferencias,Ya han participado en encuentros de comunidades de aprendizaje Qué en aquel momento escucharon y creo que hasta ahora les gustaron mucho. Que esto también es un conocimiento importante de para vosotras Y para nosotras que también gozamos de que ella conferencias.

Ángela: En mi caso Y trabajo como auxiliar de enfermería En un centro psiquiátrico Y muchas veces asistimos, cuándo se puede, A conferencias relacionadas con el paciente, Incluso a los trabajadores oa los educadores, Equipos médicos o psicólogos Que nos puede dar un tipo de herramientas Para poder abordar un poquito mejor las situaciones.

Nerea: Disculpa, me has hecho recordar por parte vuestra os felicito a las enfermeras y médicos. yo por ejemplo, cuando salí del Hospital Oncológico de aquí de Bellvitge se hacian reuniones antes de la pandemia, se hacían charlas, por ejemplo, pues de cremas que nos venían bien a Las pacientes oncológica, te venían los de nutrición, Incluso con demostraciones. se nos hacían, por ejemplo que se hace muy divertida una reunión de maquillaje para Pacientes oncológicas. Porque no todos te lo puedes poner y también, pues por parte de Bellvitge y del Hospital Oncológico yo también he recibido información y Muy bueno. y los felicito.

Adriana: Yo también por temas de mi trabajo También hacemos charla de diversidad Sobre inclusión sobre reciclaje sobre adicción,... Todo esto de mi trabajo tenemos charlas casi semanales.

Laia: Yo también por algunas cosas he estado en charlas así Inclusión autismo Y hablando así como también no sé si Jessica querías hablar o asi autismo porque bueno, hijo, si eso pues no vayas esta tarde autismo.

Carmen: Una cosa que se me olvidaba perdona Gracias a las familias que así se mueven y que nos pasan formación gratuita y nosotros hemos participado en una estupendísima A principios de este mes que estamos todos encantadísimos Si no acabamos de decir gracias a las mamás que nos encontramos Que nos lo dijo porque la verdad sido estupendísimo. Y ahora nos han enviado otra eso para la semana que viene . Que vosotras estáis muy agradecidas al cole pero nosotras también nos agradecemos Porque si no de otra manera no nos llega, Ni desde el departamento nos digas si vosotras nos compartir no nos llega. Sí que todo estamos compartiendo todos. Es que aprendemos unos de otros y todos compartimos.

Adriana: Charlas de cómo ayudar a los niños Con los problemas que tienen a través de la música, Que las tertulias que hacen también con las familia sabes que es diferentes padres de familia de todo de todo el pueblo y más sitios, sabes como … Cada Padre da su idea del problema que tiene a su hijo Bianca y cómo lo trata e le puede dar ideas a otros papás que están empezando y no sabe cómo afrontarlo.

Bianca: Yo por mí formación inicial que estudiado arqueología y arte restauración de arte y por eso también tenemos que evidencia científicas aquí en España siempre he buscado complementar mis estudios. Tuve la ocasión de dar clase a los niños aquí en la escuela Todo es como una formación continua para mí. Siempre me han ofrecido más y más Evolución en mi carrera profesional. Mi camino veo muy interesante todo lo que hace Y todo lo que proponen a los padres y a los niños.

Investigadora: ahora os voy a decir otra pregunta, vale? En todas las iniciativas que conocéis y que hemos estado hablando conocéis alguna que lleve a los a las personas hace querer ser científico o científica o alguna que promueva esta actitud.

Angela: Yo creo que cuando quieres ayudar. digamos que de alguna manera ya tienes que eso te sirve para ayudar ya ya como que no sé explicarme. llegamos que cuando Esa ese artículo científico a ti te está ayudando tú lo puedes decir a otra persona que le pueda ayudar.

Bianca: Yo me acuerdo que la profesora de mi hija y de la del Angela. La profesora que tuvo a nuestros hijos iniciaron unas charlas sobre mujeres científicas proyecto los niños y las niñas, por ejemplo, mi hija está siguiendo este camino.

Carmen: Son unas conferencias que se llaman “la ley invisible” Y que habla de mujeres que han hecho inventos Pero que no son muy conocidas. Ha venido varias veces.

Lucía: es una científica de aquí del pueblo que estamos muy agradecidas. Desde que vine a dar la charla los profesores y profesoras nos parecía una charla preciosa Que realmente nos visualizo y nos puso en primera línea cuántas mujeres habían sido inventoras y habían sido importantes en la ciencia y no éramos conscientes cuántos inventos eran de las mujeres y no se habían hecho famosos y a partir de ahí, pues salimos todas como esto no lo hemos hecho antes, simplemente sexualizado que está, eh.

Carmen: Y el curso pasado también participamos en un curso de conferencias que se nos ofrecieron a través de la universidad de terrassa, Ahora no me acuerdo cuál era, que era para el Día de la Mujer y Ciencia Qué hicieron los niños para visualizar las mujeres en la ciencia. Entonces serán unas conferencias gratuitas que hicieron Con las niñas aquí en el cole y la pantalla por videoconferencia Si conecto una chica que es científica Estoico a qué se dedicaba y todo esto.

Elena: yo sigo una página Del Ayuntamiento de Sant Boi Iba explicando cada día una mujer que había inventado algo , Una inventada no conocida.

Investigadora y por ejemplo participar vosotras en algún proyecto científico’ Este es el primero o habéis participado en otros proyectos.

(asienten)

Investigadora: este es el primero, no, esto es el primero que vais a contribuir a la ciencia vosotras también

Lucia: Bueno este es el segundo porque el año pasado participé en otro. Cómo estáis en odisea.

Nerea: Yo te quería decir no he participado así en coloquio, pero sí que me historia sé que por ser una enfermedad rara se ha hecho estudió con ella había un cardiólogo que después de trasplantar me a mí de corazón estos fueron a estoy como que el 15 de septiembre ellos se iban para Estados Unidos Y tuve que firmar el consentimiento como que se llevaba mi historia para exponer allí y estudiar con ello. He sido paciente de un estudio .

Investigadora: Bueno, pero has contribuido a la ciencia, Porque has autorizado a que se sepa no que seguramente muchas personas que posiblemente por si pueda solucionar no contestar ya.

Nerea: Ahora mismo también estoy en el estudio esto del COVID de pacientes trasplantados Bueno, pues cada 2-3 meses cuando nos van llamando, nos van haciendo analíticas y van haciendo nuestro seguimiento, pues después ellos tiran. Para que le sirve ojalá que sea para mucho. perfecto

Elena: bueno, han hecho una serie de pruebas y tal por una enfermedad rara autoinmune y también están. Y también me han hecho pruebas y tal que siempre me dejo por si se puede buscar la solución a este tipo de enfermedades raras, pues sí tienen farmacos o lo que sea que se puede ayudar a mejorar

Investigadora: otra pregunta, si vale, voy avanzando y si alguien quiere decir es hablar otra pregunta, si conocéis algunas políticas, vale? Que se lleven para promover está está inclusión en la ciencia, no aparte de lo que ese comentario, pero si conocéis alguna, pues yo que sé si no sé si en el pueblo pues hay alguna política para involucrar, no solamente a los niños y niñas y sino vosotras también, si la conocéis es más complicado, eh? Conocer estas cosas, pero si no las conocéis, pues no pasa nada.

Todas señalan que no conocen

investigadora: Sí. Bueno, vale, perfecto y después de todo. Las cosas que hemos hablado no te las cosas que vosotras conocéis si creéis, por ejemplo que tiene como que se pueden llevar a otras zonas, por ejemplo, por ejemplo que me decía ella no, si lleva a Estados Unidos y hace una el descubrimiento que les haya dado estos investigadores e investigadoras, pues podrán hacerlo en otras personas, sí que para para que se beneficien de algún tratamiento Cetra yo no sé si l tema educación o de otras conocéis es mucho más complicado. Ya os digo pero no sé si conocéis algún tipo de acciones que se están llevando a cabo, aunque se lleven en otra zona o a lo mejor el de mujer no, que a veces se lleva en otras zonas, no sé conocéis alguna, o sea, parte depueblose lleven otros.

Elena: Bueno, yo sé del cambio de sexo: en una asociación por eso por operaciones de cambio de sexo.

vale, es que te he visto así como intenciones, vale? No sé si alguna persona quiere. O en general, eh? Si no conocéis, pues algunas preguntas que se ha preguntado, así que tengáis alguna idea más y queráis compartir. Ay,Nera no se te escucha, sigues, me estás preguntando, no creo,

Nerea: Bueno, mi hijo me dice que soy muy pesada, porque yo le digo Hijo es que siempre tenemos que aprender cada día aunque sea un poquito más para ser mejores personas que tú solo piensas en estudiar nunca me dices que me vaya a jugar. Entonces le digo pues mira, hijo, esta es mi ansiedad, no? Que yo quiero salir y conocer. Entonces dónde puedo encontrar esa información y que sea de verdad.

Fuera del focus group.

Investigadora: Pues mira, ya estaba pensando ahora Nerea porque un día podemos hacer alguna algún taller o algo, no de que os enseñe cómo buscar la ciencia en los artículos científicos que sean inglés después hay unas plataformas en educación y género que también los puedo enseñar, eh? Para que podáis vosotras indagar si queréis, eh? O sea que os no pasar o universidades dónde buscar las mejores universidades y esto si queréis algún día lo programamos ya después de la tercera otro día de la tertulia o podemos programar y será un placer compartirlo con vosotras para que busquéis cosas es porque ahí artículos científicos la mayores son en inglés, vale? Pero estamos en el siglo 21 y tener Google que no es como hace 100 años que no teníamos nada, no entonces se puede traducir os puedo enseñar cómo se buscan y otras son en Open Access Antes estaba muchas encerradas las las las los artículos, pero podemos mirar también estás que están en abierto, vale? Como podéis buscarlo si queréis hacemos eso y un día pues así también como yo busco los de salud también tenéis derecho vosotros a buscar, pues eso de salud educación o cualquier cosita más, si le parece bien Alicia e y os parece bien a vosotros, pues lo acordamos un día que me digáis y lo vamos haciendo también con las tertulias, os puedo ir enseñando algunas cosas o sea que yo encantada el año pasado del pueblo Porque no sé si a lo mejor no, no es no está demostrado, ……. ( sigue la confersacion pero fuera de temas de la investigación)

### Teachers

**How citizens benefit from scientific research**

Complex question. Need to focus on what we mean by science. And why are we getting the public involved?

There are differences – for example between hard and soft science. Some science, such as medicine, has a human practical value. People can see the benefit.

Social media is like that expression a stick has two ends! It provides easy access. People can access and put their views out there. Also for scientists it can be a help. But also how scientist are exposed to the public through it. They need training on this. Scientists are not used to this.

**Citizen awareness of the impact of scientific research**

Hard question. How do we put in public domain as teachers? Many people do not believe in science. And many do not understand the scientific method.

Much will depend on people’s belief in science.

The example of illicit drugs and pregnancy is a good example. Would it pass the ethics committee and if it did, should we share all the information with the public? Does it have a negative impact and if so, how this is translated to mothers?

The sputnik is a good example. It is partly about the science behind it but also political for whether it is approved by the EMEA.

Showing the social impact of science is important.

Everyone has an opinion. However, this may not help in encouraging more participation.

**Awareness-raising initiatives succeeding at engaging citizens in scientific participation, including the Open Access movement**

We need more action research. Get people involved in more research. This will encourage them to do research.

Difficult to include all science in the curriculum. The example of climate change is too broad.

Think about a restaurant. You do not need to understand all the science and processes of a restaurant or food to enjoy what you eat.

However, some people are interested in this too so need to identify and encourage.

Focus less on research results sometimes and more on the methodology.

**Awareness-raising actions that foster the recruitment of new talent in sciences**

Science is very competitive. In fact, you want to ensure competition so it is hard sometimes to make it more open to the public.

Are they decent places to work in? This needs to be targeted.

We need positive action higher education may be open to everyone but it depends where you are and if you all take it.

Perhaps we need positive discrimination, such as legislation, to enforce change.

**Policies that promote awareness-raising actions and citizen engagement science**

A lot of autonomy has actually been taken away from institutions.

There is a role for legislation though.

### Students

MODERATOR Yeah. Ah, okay, nice. So, we can start, I will share my screen. That's also the reason why I'm two times in this call. And then you can see it. Can you see my screen?

ASSISTANT-MODERATOR Yes.

MODERATOR Okay. Yes? Well, that's very nice. So welcome, everyone. It's so nice of you that you could join us. I appreciate your willingness to participate. My name is Stephanie. I am your facilitator. I'm also the one who send you emails and WhatsApp conversations and I’m really glad that we found a time and a place that we all could join. This is Nelly and she will also be taking notes, and she's assistant moderator, and also, will be asking questions. So, we organized this focus, we are going to have an egalitarian dialogue about social impact of science on society and education and also the participation of minority groups in science. You are going to provide your daily life knowledge and your opinion, and we are going to provide knowledge from scientific research.

So, this is the welcome part and then I will introduce it and set the agenda. So here you can see the reasons why we are having these focus groups, it's to explore how citizens benefit, you can read it for yourself. It's also if people are aware of the impact of scientific research on society, how to involve minority groups, what initiatives succeed at raising the awareness of citizens, and what it initiatives foster citizens’ participation in scientific research with social impact. So these are the topics and then we also will have statements with these topics. But you will see that later. We need your input and we want you to share your honest and open thoughts with us. You don't need to be an expert, we are just curious about your opinion, and every opinion matters. So, please feel free to say anything you'd like to say. Don't worry about the English. Because we are here to help you at any time, I also make mistakes, or I don't know a word or anything, it's not a problem at all. So please don't worry about it.

Then we have some ground rules. And the most important rule is that only one person speaks at a time. So, there may be a temptation to jump in when someone is talking. But please wait until they are finished. Now what I said before: there's no right or wrong answer. Εverything is okay. You don't have to speak in a particular order. And you don't have to answer every question. It's just if you want to say something you are able to say but you're not. You don't have to, it's okay, if you don't have anything to say about subtopics. You don't have to agree with the views of other people in the group.

Because we want to encourage an open discussion, when you do have something to say please do so by raising your hands. Because there are many of you in the group and it's important to hear the views of each of you. And you can do it by this: so it's a button on the bottom of your screen. Maybe we can all raise our hands. So we can see that everyone knows how to do it. And I can see, yeah, I see a whole queue of people raising hands. So that's fine. And you can put it out by pressing the hand again. So then yeah, it will disappear. So that works. It's also important that you see all the participants. So, if you don't, please change the layout, you have to push on the three dots on the bottom of the screen. And then you can change the layout and also the number of people you can see. So, it's important that you can also see each other's reactions. So, if you don't see it, is there anyone who has trouble with it right now? Can you see everyone? Okay.

Well, we have five topics to discuss and [pause] Okay [pause], I was just…[pause] Sorry, I was looking at the chat. We have five topics to discuss. And I'm hoping we will get to all of them. So, I may need to move us along at times. We will see, maybe some topics are longer or shorter. That's not a problem. Well, like I said, most of us are not native speakers of English. So, don't stress about mistakes. That's really not a problem. The meeting will be like one and a half hours. And we will have a break somewhere in the middle, I guess, after three topics. So, we have like a longer part and then a break, and then a shorter part. And then we wrap up. Does anyone have any questions so far? No? I see a lot of nodding heads, you can turn on your microphone, or you can raise your hands. Oh, okay, then I'll just go further.

Also, your participation is completely voluntary, and you have the right to withdraw your participation at any moment, as well as the right not to answer to the question of the focus groups. Well, then we go to the warmup. And it would be nice for everyone to briefly introduce themselves. So, can you please tell us your name, your academic discipline? And why you decided to participate in this focus group. So maybe Emma you could start with it your name and your discipline and a reason why you want to participate?

Emma Hi, my name is Emma. I'm in my master here. I studied orthopedagogy. And the reason why I participate is? Well, because I would like to…to help the research, I think it's an interesting subjects and I wanted to come contribute to the research.

MODERATOR Well, that's really nice. Yeah, I think you also can really contribute to science by participating. So, I think that's really nice reason. Do you have anything else you'd like to share? No? That's okay. Then I'll just go to the other participants. And then.. then we can all introduce ourselves, and then we can start with the topics. So maybe, Sophie, you could introduce yourself.

ASSISTANT-MODERATOR Sophie, you're muted. So, we don't we don't hear you.

Sophie My name is Sophie. I live in Groningen. I do the same study as Emma, in my master year. And I do part I do participate in the study because I thought it will [not clear] to the opinions of others and to share my own opinion about topics.

MODERATOR Yeah, you will get the chance. Yes. If we go to the topics, so that's really valuable. Maybe MATEO, I can call your Mateo like, or?

MATEO Yeah, yeah. Yeah. Okay.. Hello to everyone. I am Mateo, I'm from Spain. And I am doing right now, a PhD in education. Because I am a primary teacher. And I'm participating in this studio because first of all, I like to talk, I like to speak [laughs]. And in this topic, in this topic, science education, science in general, politics, these kind of things, I love to discuss about this, this kind of stuff. So, for the for this reason, I am participating. And of course, I want to help you. So.

MODERATOR Yeah, so that is also nice. And I think it also maybe will be interesting if you are in the field of education, because we're going to discuss something about education as well. So, thank you very much for your introduction. Anika, could you please introduce yourself?

ANIKA Yeah, sure. So, I'm Anika, I live in Groningen as well. I do the same study as Emma Sophie. I'm not going to try to pronounce it because it's really shitty to pronounce in English. So, it's orthopedagogiek in Dutch. [laughs]

MODERATOR I have the same problem.

ANIKA Yeah, yeah. So, I'm not even going to try [laughs]. And why I take part of this investigation research is because I think it's really important that people get to know more about these subjects and why it's important to that every layer of the society takes part in this kind of stuff. So that's my

MODERATOR Yeah. Your motivation? Yeah, we will also get to that. So thank you very much. I don't know if I pronounce it correct, ut, Eleni?

Eleni Nice. Yes, please. Yes, yes, it's Eleni and from Greece. And I'm also a PhD candidate, and mathematics education. And so, the reason that I'm here, first of all, say, like, I like the methodological approach. So, I want to learn more about focus groups and how focus groups work. And on the one hand is this, on the other hand, it's okay to talk a little bit about science and discuss things with other people. And, yes, that's why I'm here.

MODERATOR Oh, that's nice. Oh, thank you. I think it's also nice that everyone has his own reasons to coin. So maybe, Mary, you could introduce yourself? Can you hear me? Are you already there?

MARY Can everyone hear me?

MODERATOR Yeah, yeah, we can hear you.

MARY Okay. My name is Mary. I'm 33 years old have studied biomedical science in the past. I live in Groningen at the moment. That's it.

MODERATOR Okay, well, thank you. And thank you for joining at this very last moment. So maybe I'll introduce now, are you going? Because I want to ask you to introduce yourself, but I

ASSISTANT-MODERATOR I can but can you hear me? Because I think I have a problem with the connection. I cannot see any faces. So, my name is Nelly and today I'm going to be the assistant facilitator. I'm working for the ALLINTERACT project, as a researcher and I'm also doing my PhD at the University of Groningen. Yeah, that's it for now. And, Stephanie, maybe we should consider rushing up a little because we already lost a lot of time at the beginning.

MODERATOR Yeah. So, we will start. So, we will have to work or discuss five topics. And first you will see the topic for example, this is topic one. And then in the next slide, you will see the statement we are going to discuss, and every topic has three statements. So, the first topic is how citizens is benefit from scientific research, and within the marks on education. So, this is statement one: “citizens benefit from scientific research”, or you can think about it, and then you can maybe think, oh, to respond to this, because then you can raise your hand. Do you believe that citizens benefit from scientific education or not? And why do you believe that? Is there someone who wants to say something about this first statement?

ASSISTANT-MODERATOR maybe you kind of think about yourself? I mean, in what context? Do you benefit from scientific research? Like in your everyday life? Do you use something that has come from scientific research?

MODERATOR And it can be in the broadest sense. It doesn't, it can be medical, or maybe it can be on education, it doesn't really matter. Is there anything that you can think of? Where a citizens benefit from research?

ASSISTANT-MODERATOR at MATEO has raised his hand

MATEO Yeah, yeah. Yeah. I don't want to be negative in this regard. But, I really think that science, scientific research is not reaching the citizens. Why I tell, why I tell this? Because, honestly, I think we are right now in a moment in which we, we believe what WE [emphasis] want to believe. I mean, if there is something that it's, it's not, I don't like it, It's more, it's a, it's more likely that I don't believe it. So, I think right now science is not getting is not, It's not. Yeah, it's getting to reach normal people. Besides, I think science is not in, for example, in, in apps for young people are on in these types of things. So, it's difficult to reach young people if you are not using in their media, the correct media. So, I think there are several factors that are getting the things more difficult for, for science to reach people.

MODERATOR Yes. So you think it's difficult because they don't use the right medium? Is that correct?

MATEO Yeah. Yeah.

MODERATOR Yeah, yeah. Okay. Well, thank you very much. I also see that Salah has raised her hand.

ANIKA Yeah, I think it's also because of the accessibility to the scientific research. Because when you study, at RUG, it's really easy to use Smartcat [a database], and to look up what you want to look up. But when you don't study at RUG or at any other school like that, it's not that easy to get the right information, or how do you get? How do you know if it's really true or not? And people these days, are questioning everything. So, it the weight of being investigated and investigated by some scientists, I don't know how happy it is these days. I don't know if you get me.

MODERATOR But I think what you are saying is that it has to do with accessibility, that you are already in the university, then it's easy to access. But if you're not, then it's not access. Is that the point you were making?

ANIKA Yeah. And it's, it's not easy to read for most of the time. Or it's in English, which can also be… ah…

MODERATOR Difficult?

ANIKA Yeah, or that you're not motivated to read it? Because it's too difficult. Mm hmm.

MODERATOR Yeah, I get what you mean it for anyone who disagrees or agrees with it, or want to add something to this topic? Oh, they now go to because I saw Mateo already nodding. So I think maybe that is what you mean, as well. I see a hand from Sophie.

SOPHIE Yeah, well, I think that we are very biased. From, from, from, the science, I think that there is a lot of good science. There's also a lot of bad science because, for example, publication by though a lot of research that is done, we never read. And I think like the media is really biased because they only publish what they want, what is good in their opinion. And there is also a lot researchers, there are only done to research because it's for their own benefits. And it's foreign and regions to earn money have to get money for their own...

MODERATOR Profit?

SOPHIE Yeah, yeah, exactly. And I think with us, like a pure researcher, and that really wants to find a true, it's always good, and we can all benefit. And we can all benefit from it.

MODERATOR Mm hmm. Yeah. So thank you, that's also really valuable, that it's bias. So maybe we don't get access to everything the correct way and the media will show it. Nelly. I see you have raised your hand.

ASSISTANT-MODERATOR Yeah, I was wondering if what most of you describe accounts for all kinds of scientific research, for example, do you have in mind scientific research in medicine? You don't think that you are benefit from any scientific research in medicine?

MODERATOR So maybe somebody..,

ASSISTANT-MODERATOR In your everyday life or in this specific time that we are going through a very difficult time…?

SOPHIE Yeah, well, I will just this… [pause]

MODERATOR Yeah, you can speak if you want, Sophie.

SOPHIE Okay. Yeah. Well, I want to give an example. We, I had, I had college a from Lara Basra a few years ago. And she told a story about your [not clear]. And there was leaking a PowerPoint from him where he did, he did research on a medicine, I guess it was Risperdal that is a medicine for children who are psychotic. And he, and he said in his PowerPoint, that he will show which ratio for the study that was already done. So he was really biased. And I read more examples for that. Sometimes, like in Big Pharma, there's a lot of there is done a lot of research in benefit before that's and for that medicine, that it's much better than it really does.

MODERATOR So that is also an example. Yes. And also, Emma did you want to say something about what Nelly asked? Because I see your hand?

EMMA Yes. She asked something about the time that we are going through, like the pandemic I assume. And I just think that as a citizen, it is important to always maintain the critical view. Also, on media, because there's a lot of like Sophie says, bias and framing. And also, when you look at medical science, I think as a citizen, do you benefit a lot, because, for example, surgery, and medicine, but in my opinion, I think it's sometimes forgotten that there there is, for example, in this time, there is also an underlying pandemic, because a lot of people do not have a healthy lifestyle. But well, in the media, I don't hear a lot about this subject to improve healthy foods. For example, because for Big Pharma, with with medicine and vaccines don't doesn't have benefits from that kind of news in media, they have a lot of interests in purchasing of medicine and vaccines. So. So my point is always remain a critical view on science, for example, medical science, and what the media tells you, you can do research yourself. So yeah, yeah, that's it.

MODERATOR Yeah, I think I get your point. And so now I want to go to the second statement. And that is also like the same statement, but then on education. So maybe you can think of your own education, maybe in high school or maybe primary school or maybe your current education or maybe education in general. But can you think of something where as it says, benefits from scientific research on education, Is there anyone who pops up something in their minds to think oh, I want to say something about that? MATEO see your hand?

MATEO Yeah. In this regard, in education, I think there is a big problem regarding to, to the scientific, in the scientific view. I mean, at least in Spain, what we receive in in, for example, in primary education or in secondary education, we only memorize the big ideas of science, how to explain the things we only memorize. But we don't take into account the other part of science, for example, how science works in order to get these big ideas to explain to explain the our reality. So, in my, in my, in my opinion, at least in Spain, education is not taking into account a lot of things regarding to science. And for this reason, the students don't understand a lot of things that they, they all day, all of this happening a in our in our life. So more or less, I think I explained.

ASSISTANT-MODERATOR Yeah, I think if I may interrupt. So Mateo. Ok, can I ask you something? How do you know that the students just memorize and then that they don't take anything?

MATEO Now, when, obviously they take, they take something, but if you present them an exam, in which you only have to repeat a part of a text, you are going to do only need to memorize, and unfortunately, this is what happens a lot of times in science education in primary. So, if you if you, if you encourage them to memorize, they are going they are going to do is to do this. So…

ASSISTANT-MODERATOR Um, can I ask you how you believe that this could be changed?

MATEO Oh, we need like a four PhD in order to change.

ASSISTANT-MODERATOR Okay. And then what is, what is your…

MATEO I think? I think, sorry, I think their mark, the most important thing is to change the default, the training for a future teachers, right, you change this, you will change the education?

ASSISTANT-MODERATOR How can you change that? I mean, what is it a PhD? If it is not research, scientific research on education? Or how can you change the training of the teachers if you don't do scientific research on education?

MATEO This is a tricky question.

ASSISTANT-MODERATOR So asking again, from a different point of view: Τhis is what scientific research on education is: what you're doing in the PhD, the people who gather together and have the collective data that students in Spain memorize instead of having a meaningful learning experience. This is the scientific research on education. And the question is: is anyone benefit from this scientific research? [is anyone benefit] from the fact that you are now interested in how I can make students truly understand instead of memorizing?

MATEO I have to think about it.

[Anika raises her hand]

ASSISTANT-MODERATOR It’s ok, Maybe Anika can now share her thoughts.

MATEO Okay.

ANIKA I think you have to make the students responsible as well, so that they feel part of what they're doing. Because otherwise it's there, it's just talking about not talking with and I think that's is as well with topics like science, or in general. As long as you're still talking about it, it's not going to be part of what they get, or it's it will stay far away in that way. So, I think it really helps to interact with the topics that they're doing, and that they feel they can change something as well.

ASSISTANT-MODERATOR What you mean is that people would benefit more from scientific research on education, if we actually included also the points of view of our students and the students in the research? Is that what you are saying?

ANIKA Yeah, exactly

MODERATOR And is it also the same.. because, well, we have like a Dutch point of view, but is it the same in Greece for example? We also have I think some people participating from Greece, so maybe, to Eleni, can you say something about the situation in Greece?

ELENI Yes. So at least in my department, mathematics, a lot of research happened for sure. But the policy was not really interested] in research. So, there is the people who design curriculum and the design cool material, but they this material never reached the school classroom. So that's what I feel that happened in Greece. So, another example: it was an idea some years ago that using technology in the classroom benefit the students. Good. So, they gave to all the first-year students, elementary school, if I remember correctly, some small laptops. Okay, the students got the laptops [but] no use, after that. They didn't. Teachers were not really educated on how to use these laptops in their classrooms. So, there is research on that. And for sure, there is literature on how to use a technology in your mathematical classroom, for example, but the teachers never really came into touch with a say, a literature. So, there is a gap.

MODERATOR Yeah. So so there is research, but it doesn’t reach the teachers. Is that what you’re saying? Yes?

ELENI Yes, for many reasons. Yes. So and a problem is that most resources in English, okay, it's not in Greek. The language is an issue. And if we can say, that it’s an issue. Second, I don't, at least the teachers in Greece are not that young, let's say [laughs]. I mean, most of the teachers are over 40, at least from my experience, when I was at school. So, they were not really interested in learning something new, I apply something more, I don't know how to explain it. Nelly also has some experience from my Greek high schools.

ASSISTANT-MODERATOR Just to understand if I get what you're saying.. but if these teachers would come actually into contact with the scientific research, that is, that is held right now. They would be they would benefit from that? And they would become better teachers? So, the students would also benefit from that? Right? So the problem..

ELENI Yes, yes.

ASSISTANT-MODERATOR [so the problem…] is that this research that is being done, does not get implemented, or

Eleni Yes, I feel the research never actually reaches the schools. That's my point of view, or at least, that's what I'm thinking. That happens in Greece.

MODERATOR Okay, well, yeah. So yes,

ASSISTANT-MODERATOR Moderator, do you think maybe we should also introduce like, the statement and the scientific evidence and then [continue] because we are a bit late.

MODERATOR This is Statement two. And this is statement three. That is, I believe that education meets the needs of all students. So, you can think about that. And then we first go to the scientific evidence, and then we'll give her some scientific evidence. And then after that, we can discuss it further. I think that's the right way to go. So, take it away.

ASSISTANT-MODERATOR So in the ALLINTERACT project, which is the project, the European project that organized this focus group, we have done a research method that it's called social media analytics, and what you're doing basically, is that you're base you're taking some social media (Facebook, Instagram, Twitter, Reddit - I think, you know, most of them). And then, we searched for specific topics and posts regarding education or scientific research. We extracted them, we analyze them, and we have some findings. Ok? And one of the findings I'm going to share is that in Facebook, for example, there are many pages only for teachers, primary teachers, secondary teachers, and so on; And in these pages, the teachers are sharing resources. [they] are sharing resources, for example, on how to teach science or how to teach mathematics, mathematics, learning techniques, like finger counting, memorizing techniques. And these are all parts, they are all issues are coming from scientific research. It's not that you picked a random, a random man that grew up in the forest and just he came up with all these memorized techniques. He had a degree in primary education. So that means he was taught some things in his courses that are results from scientific research on education, or he studied paper. Like let's say, MATEO, for example, is now studying in science education, his paper, he got he's probably going to publish papers or write a blog or surface experience. And then this way, the teachers are benefiting from the scientific research, and then they go to school, and they implement these techniques. And then the students are benefit from that. Because they can teach [learn] mathematics instead of memorizing mathematics, for example, or they can have a meaningful learning. So this is one way that both the teachers and the students and probably the parents and the students, not only our students, but also as future literate citizens, they are benefit from something that did not come out of nowhere, there has been some scientific research on how this child can better learn mathematics. it was not out of nowhere. So, this is what, I'm not and I cannot uh, can you please [change the slide]? Okay. And then another slide that has to do with the third statement? Do you believe I'm not sure how it was [stated]? Can you repeat it maybe Stephanie? If all the students are benefit from

MODERATOR Oh, you want to know the topic? Oh, I'll do it.

ASSISTANT-MODERATOR Yeah, “I believe that education needs of all students”. So, one way you can read that is “I believe that education meets the needs of all students”. Whether it does [meet the needs of all students] or not. Or, you can read it by saying “I believe that education meets the needs of all students”, meaning all [students] and not excluding [some students].In the research on education regarding science, education, and equity issues, we have found as a result that not all students are equally benefit from research and from education. So, there are specific groups of people that do not achieve equally well, not because there's something wrong with them. And that is a result of the research. Because initially, you could see, some dominant cultural groups achieving better than minorities, for example. And initially, people would say: ‘well, there's something wrong with minorities, maybe they're not smart enough’. But then research on education came, and we [\*not good connection\*] [concluded that there was] nothing wrong with them. [What what] wrong is the way we chose to teach, that is only culturally relevant to the dominant [culture] and not the minority [students]. So, then we have more research that [aims to find out], okay, we do something wrong, let's find out through research, how we can replace that into doing something that we have as a result that they will both achieve equally. And these [one shared in the ppt] are just examples of some research. And there are many, many more examples of researchers that deal with that how we can engage all students, regardless their background. So maybe, these two scientific evidence can, can inform your thoughts and thinking and maybe you have now something to say similar or different to the other [previous statement], to the, to your thoughts that you had before, on whether do people and citizen and students and society benefit from scientific research on education?

MODERATOR So I put up the slide, and you can see it, you can read it. Is there anyone who wants to say something after this scientific evidence? Did it change something or did it change nothing? Or did it pop something in your head? [Mateo raised his hand] Maybe Mateo would like to start?

MATEO Yeah, yeah, I would like to say that, related to the 3rd statement, that it's not, we shouldn't have taken into account only the approach to teach. It's important. I am not telling this, it's important. But, in my experience, at least in in Spain, we have a lot of students in the same class. And this is very difficult for the teachers in order to adapt themselves for the different students. So apart from the from, the from the approach that that you use, in order to teach them, you need to take into account the other this other thing, the amount of people inside our classroom. So, for example, in Spain, they're like 30 students per class, in primary I mean, so it's very difficult to adapt you, to the to all of the student you need help. As a teacher, yeah.

MODERATOR And do you have any ideas on how, how you could change that you say, you just need smaller classes, or is there anything else needed?

MATEO No, we need more money in order to contract teachers. No, it's true, because if you have more teachers, you have less students per class. So you have to invest in teachers. So, yeah.

ASSISTANT-MODERATOR And what is a politician says that that is your opinion and believe that the quality of education is the same if you have 10 students, or if you have 50 students in the class. How can you answer to that? If a politician says: ‘I won't give you any money’. Because I think it's the same if you have 10 or 50 students,

MATEO you can think whatever. And you can think whatever, but you need to base your, your statement in evidence and evidence

ASSISTANT-MODERATOR Exactly, and how can you find evidence, how will you find the evidence?

MATEO This is another problem, because I think in research, we are like in our bubble, and we need to, to publish in journals and this kind of thing, but this journal, is not, they are not in their real life. They don't read, for example, for this reason, I think Facebook, Instagram, I don't know, why this kind of stuff could help not only in papers, papers in journals, it's very important, but okay, it doesn't make any sense for the teachers, I think.

ASSISTANT-MODERATOR Okay, so just, just to connect that, again, with the topic, which is how citizens benefit from scientific research, and if they benefit: Do you think that if there was research that proves that when there are many students in the same class, the work that is done is not quality work, would that benefit teachers who ask more money from the government?

MATEO Yeah, yeah, yeah. Yeah, I agree.

MODERATOR And Anika said “let them come to class”[laughs]. So, you, you think they should see how it is in? In the practice?

ANIKA Yeah, because it's way easier to just talk about school and how it all takes place. But when you actually come to a class, take a look yourself, you can see that it's really easy to say, “oh, yeah, they should just be more in interaction with all the kids. And it's not that hard” until you're in the class. And you can see it yourself that it's not that easy, as it's, as it said. Because my internship at this moment is at school with children who have lower IQ, and sometimes with some other problems as well, like autism or stuff like that. And there are always two people in the class, and the classes are between eight and 14 kids. But still, it's because the demand of the children is so different. It's still really difficult to [explains in Dutch]

MODERATOR Yeah, to provide for all their needs.

Anika Yeah, exactly.

MODERATOR Yeah. So, you think it should work both ways. So maybe the scientists should also go into the classroom? And also the evidence should come into the classroom? So. it's two ways to it? Is that correct?

ANIKA Yeah, exactly.

MODERATOR Well, thank you. And Sophie, do you want to add something? Oh you are muted. So you're saying yeah,

SOPHIE Okay. I really do agree with Mateo and Anika. I think it's really hard to give all children equal equity, because some because some children need more. And I; And last year, I worked in a class with almost 30 children and with one teacher. So, it's, it's really hard to give all the children what they really need. And also, what I see in Holland is that for example, when, when, when a parents have more money, they buy extra lessons for the children or, they can help them better with the work if they are high educated by themself and.. So I think that's we willing to put more money and attention in educating to all the children what they really need.

MODERATOR Thank you for that, I think, Oh, I see a hand. I wanted to go to next open. But Mary, do you want to contribute something?

MARY Yes, can everybody hear me, our connection is not very well,

MODERATOR I can hear you. Yeah. And I see some thumbs up. So I think everyone can hear you.

MARY So, I have the experience, I have the, the unique experience that me my younger brother, who is 18 years old, younger than me, have had the same primary school teacher. So, when, when I was 12 years old, I was I was taught by the same person that my brother was taught when he was eight years old, and they're 18 years apart. Luckily, the teacher he has is, is really passionate about her work. And could see that she tried really hard to have all the kids in her class, up to popular standards. But I don't think in Greece, science, education, or in the research done in education ends up to being practiced at all. And as Nelly said before, most of the research is done in English. So, I think only countries that have as their primary language, English, benefit from all the research done.

MODERATOR So the Oh, sorry…the language is a problem, you say?

MARY And I don't I don't sorry, I don't think language is a problem is that governments don't put enough stress into their teaching associations or whatever to get better.

MODERATOR So you think that that would help if the government have put more into it?

MARY Well, yes, there's there wouldn't be point of having research and education, and it just being published in, in articles, like Mateo said earlier, if it doesn't get practiced, and the students, the citizens benefit from it. There is no like that it's you know, we spend so much money on research that at the end, is not being used.

MODERATOR Okay, well, thank you, then I think we should go to the next topic. And I'm looking at nearly because we are a little short in time, maybe it's an idea to present the three topics, so we can think about it, and then present the evidence and then have the discussion. Or what do you think?

ASSISTANT-MODERATOR Yes, I agree, because we are behind. So, trying to sum up, in order to move to the next topic: I'm not sure if I have understood what you're trying to say. So, I'm trying to remind you that the first topic is, if citizen benefit from scientific research, like in general, for example, I benefit because when I have a headache, I take a painkiller. And if it wasn't for research, I wouldn't have this painkiller to take. Or if I am not, well, I will do a surgery or we'll do a vaccine or all these this benefit of time, I think decreases in general. And then specifically in education, I can see that we have heard that it's always good to be critical. And it's always good or and there's a problem that the scientific research that is being held, is not practiced. So, in the end, people are not benefit because either research is not being done, or the research that is being done is not practiced. And just with these in my mind, in our mind, maybe we can move to the second topic, because it's also related to those, to these things. And the second topic is if people, citizen, are aware of the impact of scientific research? It's like, there is some kind of impact of scientific research. But the thing is, do we know it that there is this impact? And moderator, sorry?

MODERATOR No, that's okay. Are you explained it really well, I just wanted to add the statement because I had to statement scientific research has an impact on my everyday life. And also, scientific research has an impact on society. And as citizens benefit from scientific research, and so some of them we already discussed, but it's also lit about the same. So I'll put it on this citizen awareness on the impact of scientific research. Is there anyone who can share an impact on their everyday life all scientific research? Is there? Was there a moment or was there anything that you thought, Oh, well, and now I really benefit from it or something like that.

ASSISTANT-MODERATOR And then, as you're thinking, just to narrow it down more to the topic, do you think that people are in general aware of the impact like for example, if a person is using the painkiller everyday, do they realize that they they do have access to painkillers because there has been some research behind not because there's a tree that keeps painkiller and we just think they don't grow in the fields. Sophie, I saw you raising your hand?

SOPHIE Yes, well, I use a sheet for example, for my lifestyle and what I eat every day and so I try not to eat as much sugar. It's not always easy, of course, because I love chocolate. But I really try to have a healthy lifestyle, because science says that a healthy lifestyle is better. But I don't see really that it is doing that for a lot of people. Because in Holland, we say it's, it's a far from my bed show. Really, because for example, when I talk with my parents, or my grandparents about science, they really don't understand what I mean. And so that's really not interesting for a lot of people.

MODERATOR Oh, Sophie I think we lost you. Yeah, you should probably. Maybe in the meantime, Emma can give her opinion. Then, if Sophie comes back, we can hear what she has to say. Emma. would you do that? You are muted. I can't hear you. So you asked for Emma, I also want to share her opinion because we lost you. So maybe she can give her opinion. And then you can pick your point. Is that okay for you?

SOPHIE I lost my internet. connection before. That's okay.

MODERATOR I guess it's not a problem, but then Emma can go first and then you can come back to the topic you were discussing.

EMMA Yeah. So I have an example of awareness in daily life. So I had a family member who had breast cancer, and then she went to the hospital. And then she went for a second opinion to another hospital. And there was a new treatment. This was also under investigation. And well partially because of that new treatment that she decided to try, she recovered. So that really increased my awareness of scientific research in healthcare.

MODERATOR Yeah, thank you. That is a really nice example I guess. And awareness-raising. Also Sophie was talking about that there wasn't a lot of awareness. Would you like to add something or where you already finished when you were kicked out?

SOPHIE Well, I that I already finished what I wanted to say. I think that only for high educated people, they are interested in science. And for a lot of, like, middle or low educated people, maybe that they are interested, but they don't really understand what it's saying and how research is done. So it's, so I think that it's too difficult for them.

MODERATOR Okay, thank you. And also Mateo, do you want to say something about the awareness of people?

MATEO Yeah. I would like to say that, of course we have benefits from science in our daily life. For example, I don't know if you realize, but in this pandemic era, we use it a lot of times. I think this is not related to medicine, it's other kind of science. But I think the problem is that one thing is that we benefit from science. Another thing is that we have the awareness of it, so because of we see all these benefits every day, a lot of people don't realize that they exist. So this is a relevant problem to take into account.

MODERATOR So you say, Okay, we do benefit, but people are not aware of it. Is that correct?

MATEO Yeah, but because we all see these benefits in our daily life. So we don't realize that they exist, because they exist from our beginning in the morning. I don't know if I explained myself.

MODERATOR Well, thank you. So maybe assistant-moderator, you can give us some scientific evidence now?

ASSISTANT-MODERATOR I really get what, Mateo says that they were here from the beginning when we were born. If we sometimes think that how our life would be if we were 100 years before, like, many women would just be killed while they were giving birth, for example. And that's not something that we see everyday. But we only use examples from medicine today, because maybe it's easier for us to understand. But this focus group might be an excuse for us to also things in other fields, like how do we benefit from science and education, or science in other fields? So there's scientific evidence coming from the AllInteract project, regarding topic two, from the social media analytics. Do you know this social media, I didn't before this research, so it's pretty similar to Facebook and the other ones. And we saw that there were many discussions taking place. And people, you could see that people are aware of the benefits of scientific research, because someone would say something, and they would answer. Where's the evidence for that? Why do you say that? Is that coming from research? Or is it just maybe a stereotype or maybe it says something you believe? So, for example, there were some debates about whether the drugs or and cannabis are having an effect that are dangerous for women, for pregnant women and their babies. And some people would say something, and then they would give a statement regarding if it is or not, if it is safe, drugs when you're pregnant, and then the other people would ask, How do you know that is just your experience? Or do you base it in some kind of research? Where's your reference? And that is very important, because you can see that many people are now more critical and they can understand that we have a benefit from science and that means that I can't. I will not believe everything that person says that might be just a stereotype or just a belief. I know that now we have a science to move over some false thoughts or some stereotypes. And I'm not sure if there's also other evidence.

MODERATOR No. So maybe we just go down to see the topics again. And after what ASSISTANT-MODERATOR said, is there someone who wants to react to that, about awareness of peopl.

ASSISTANT-MODERATOR Maybe you have this experience in your life? I mean, do you? Have you been in front of a situation where you said something? And the other person said: How do you know that? I mean or that you had something and you had doubts about what your said, like, before you were talking about the media. Someone said that you should be critical as you hear something from the media? Do you think that? Can I believe that? Is it based on research? Or can I trust it? And what kind of research is it based on? Do you have any experience like that? Okay, if you don't, we can just move to the third topic.

MODERATOR I wait a little, maybe if you want to come back on that, that's also okay. But we will go down to the third topic. And it's about raising initiatives, succeeding at engaging citizens in scientific participation. And so we were talking about awareness. And, well, this is like it's really successful. While we were discussing it before, is there anyone who wants to say something about this? Or about awareness raising initiatives? Or did you have anything that you said: ‘Wow, that really worked for me' or something like that?

ASSISTANT-MODERATOR When you think you're self participating in scientific research, it can be just taking an interview, or just responding to a survey. Or sometimes there's also in phone calls where they call you and you they just ask you to feel to respond to some questions. Or, in general, every survey that you took, or even this what we're doing right now is also research and you're taking part in research. Or maybe you had other people in your lives that you know that they took part in research.

MODERATOR This could also be the case. Or maybe because it's really silent. No one has experience with it.

ASSISTANT-MODERATOR We can just introduce the evidence and go back, maybe they will think of something relevant.

MODERATOR Yes. And I also have like this statement: participating is really cool. So maybe you want to say something about that first, because it's kind of a bold statement? Or maybe you think yes, I think that and then we can come back later to the other topic. Do you think maybe because I see some really [unclear] faces that are like.. Okay, who thinks science is really cool? Please put up your thumb. And if you think: well, no, it's not cool, please put it down. Can we please have some thumbs? Is science really cool? What do you think? I see one in the middle? I see one thumb up? Yeah, someone as well. Okay, we have some different opinions and domains. Eleni, maybe you can tell me why your thumb is up?

ELENI Um, yes. Okay. And it seems interesting, you always learn something new. So, at least for me, for myself, participating in some, I don't know, some things like that or filling a questionnaire is something that I would do in order to help some other researchers to produce scientific evidence so that’s my opinion.

MODERATOR Thank you. And Anika, you had it like in the middle. So I think you're questioning whether you think it is a lot or it's a little cool, or why did you put it in the middle?

ANIKA Yeah, because it depends on the subject. Some subjects I'm really intersted and then I think it's really cool. And with other subjects, I'm not really interested or I don't care about that subject as much as other subjects. So then it's like, yeah, okay. Not really bothered by this. And sometimes I really hope to learn new things and to get more information. And when doing it, it's a bit of a disappointment, so my hopes were too high. And then I'm, like, led down. So that can be frustrating at times as well.

MODERATOR Yeah, so now I understand why you had it in the middle. So maybe go to the scientific evidence now. And then we can go to the other topics. The recap of the topics? Well, you know what I mean?

ASSISTANT-MODERATOR Can you move a little bit, again, to the topic? Because I want to make sure that the topic is okay. Yeah, because I just want to make sure that we connect the topic, because the statements are there for you, maybe to give some new thoughts to produce some new thoughts, but their purpose is to guide us through the topic. So the topic is, are you aware of any initiatives that succeed that engaging citizend in scientific participation. So what kind of initiatives might allow people to be part of research? So I remember before someone said, or a couple of people said that, it's not easy for citizens to participate in research, because sometimes it's in English, and it's not my native language. And if you are in another country where they don't speak English, you don't have access to the research, or only the very high level researchers have access to this research, and I cannot just participate, I don't understand what happens. And then the citizens are totally excluded. And science is left for some only elite people, like only for those who understand the language or the difficult things. So now, we can go to the, to the scientific evidence. So this topic is have you ever experienced so far any initiatives that gave you the right to also become part of the research? So for example, in my case, sometimes I feel in surveys about the mental health of PhD students. Not because it's really fun for me, but I understand that they need my participation. Because if there is a problem with the mental health of PhD students, and we need to find this problem, write it down, and then understand how we can handle it, how we can support PhD students who might be anxious, for example. So I get I really like it, because they give me the opportunity to be part of the research, to offer something. So the evidence coming from the electorate is that sometimes there are some initiatives where citizens are just like a scientist, we get to, for example, write things in Wikipedia. You all know Wikipedia, it's open. It's part of the open access that lets everyone have open access to science. So for example, a couple of months ago, there was this event regarding LGBTQ, the term queer people, lesbian, gay, bisexual. So the topic was that we do not have a lot of representation of LGBTQ people in science, and in order trying to change that, the idea is that we gather together and we create new pages to Wikipedia, to write about the achievements of LGBTQ-scientists so we can then give the knowledge to others and gather things that other LGBTQ-scientists have none. And also there are similar initiatives with biographies of women scientists and other topics as well. And I think there's also one scientific evidence to this topic. Yeah, and also, other initiatives are some summer schools. For example, this five week residential program for low income high school students. Maybe you haven't experienced it but maybe you have heard in your life from a person that when they were young or older, they participated in a summer school, where they probably learned something or enjoyed something scientific or something else. And that was also probably science that was taking part. Because maybe someone was trying something new, how we can engage students in a different way, how we can teach students in a different way. And this way, I don't remember who told that before that we need to also include the schools and include the students this way you include the students in science, so you can have an idea about how this works. Not in the papers, not in my mind, in the real school or in the real life with real students, I get feedback from them to understand if it works. And I also involve them to be part of this research. So maybe now you can move to the topic and the statements. And I don't know if now you can remember anything or anyone in your life that participated in research?

MODERATOR Mateo, I see that you raise your hand, did you?

MATEO I think, right now, we have a very good example of scientific initiative. And I think the COVID-19 vaccination was the best image. I mean, the people know really good about which type of vaccination vaccines work in which technology. And I think before this, no one knew anything about this kind of technology. So I think right now, we have a very good example in our life of initiatives.

MODERATOR Yes, and also very recently, it is also still going on. So thank you, I see also the hand of Emma.

EMMA So I had to think of events that events, this university sometimes organizes, like, open day where citizens can come and they know there are, I don't know the word, they can come to the university, and there they can see examples of experiments. And it's even for children. And it's accessible for all citizens. So I had to think about events like that. I know there are I don't know the word. They can come to the university, and there they can see examples of variables, experiments, and intentions. And it's also, even for children. And so it's accessible for all citizens. So I had to think about events like that, yeah came across my mind.

ASSISTANT-MODERATOR I think what you describe fits perfectly the next topic, right? It's exactly what we're going to discuss on the next topic.

MODERATOR Yes, so maybe Sophie, you can say something about this and then we have a short break and then we'll go to the next topic. You're still muted.

SOPHIE Okay, so yeah. I think if you really want to reach all the people, you will really have to make it accessible and really simple for a lot of people. And I really want to say something about what Mateoabout the vaccination and I said it before but what I read in a standard media like the NOS it's only like a lot of good things about vaccination, but when I read like other media you also read like more critical things about vaccination. So and for that, I really think that a lot of people really think that there is a lot of good research but yeah, what I wanted to say is that I think it's really difficult for people to stay critical about research.

MODERATOR Thank you. So maybe we can take a break now. Because we have two more topics to discuss and we are also a bit late but I think I can use a break. I don't know about you, but maybe we'll do just like 10 minutes or something and we will meet at 20.35 is that okay?

ASSISTANT-MODERATOR Yeah, that is okay.

MODERATOR So we will see each other in 10 minutes so you can take a break, do a little dance, move your body, get something to drink. I don't know what you want to do. We'll meet in 10 minutes. I'll see you then.

(10 minutes later)

MODERATOR Hi. Let's see Oh, the screen is going on. So welcome back. We discussed the participation in science and we go on to the next topic now. And the next topic, we will discuss the scientists. So that's the people who work in science. And we will start in topic four with recruiting new talent for science.

ASSISTANT-MODERATOR So I don't know if you see everything, I can also share the scientific evidence, and then we can discuss it because I know it's late.Or do you want to do it differently?

MODERATOR No, no, that's okay. We should do that. So I will skip to that. I'm just looking at why it's not moving right now.

ASSISTANT-MODERATOR Oh, well, until you figure that out. Maybe I can start to..

MODERATOR Yeah. Okay. Yeah, you can start talking. And I'll skip to the scientific evidence, or maybe because we have an initiative that has to do with the recruitment of new talent, so that you can put that in the back of your mind. And then XX will talk us through the evidence.

ASSISTANT-MODERATOR So the previous topic was, if you have ever heard of any initiatives that would allow you to take part in science. And now we are talking about any initiatives, maybe some I don't know, events or actions that were designed in order to persuade you, let's say to become scientists, maybe when you were children, or maybe you know of other people or other people's children. And we're talking mostly about actions that are designed in order to engage students, maybe to generate an interest towards science. So for example, there are many science fairs organized and I'm not sure Emma shared some similar experience like that when we're talking about an open day at the university. This is also something similar, when people come over to the university and they maybe see some experiments taking place. And this has also been designed in order for the audience to come and see what science is, if I would be interested in coming to the University in following this trajectory. And there are also some scholarships, sometimes with a very specific target population. So for example, for black queer students or for indigenous populations, especially those populations that are underrepresented in science, and sometimes there are other different events. They are trying to provide role models for those students for those groups of people that are represented. So we know for a fact that we have less women in science, for example, and that is why there are many events where there are women in science, and they share their experience. How I ended up being here. For me, being among so many, male scientists, for my ears knows that in mathematics, for example, there are always a lot of men, not many women. So there are events where mathematicians might share their experience, and inspire younger girls to follow a mathematical career. And is there any another slide of evidence?

MODERATOR Yes.

ASSISTANT-MODERATOR And also these, you can see just two random papers, there are many papers and studies that are dealing exactly with that. How can we find initiatives to attract more women in science in engineering and technology, or more people of color or more different populations? Because we know that most people in science are male and white people and middle class. So let's find initiatives to attract different populations. Different democratics. Yeah, this.. So have you ever experienced a similar event to an open day in university or a summer school? Or?

MATEO I would like to say that, apart from from what you explained, I think the best way to promote scientists or people who like science is to show it in a cool way or location. I'm sorry, I'm a teacher. So for me, everything is related to education. So yeah, the point is not only for the students science facts to memorize, because this is boring. And it is worrying for the student. They will not be scientist and they will not be interested in science. Yeah. (…) Yeah, I think, I think one of the most important things is to have examples of people who have studied science already. Because in this way, you'll see that it's not something impossible, because you have an example, a concrete example, near to you. (…) I was thinking, for example: a friend or a sister or a brother or someone near.

ASSISTANT-MODERATOR: So I totally agree with what you're saying. So besides changing, like, the whole education system, is one of the biggest goals. Can you imagine maybe having a specific action that can maybe inspire people to follow science, for example?

MATEO Yeah, I think one of the most important things is to have examples of people who have studied science, or something already, and make science near for you. Because in this way, you see that it's not something impossible, because you have an example, a concrete example. Near from you.

MODERATOR You mean something like a role model? Someone?

MATEO Yeah I was thinking, for example, in a friend, in a sister in a brother something near for someone that.

MODERATOR So you see, it's not impossible, and you can do it as well. Is that what you are saying?

MATEO Exactly! Exactly. This is the point. Yeah. Yeah.

MODERATOR I think that is really important as well. I just put up the topic. Is there anyone else who thinks of something that would be really helpful to recruit new talent? Just a thing that would appeal to you? That you think: ‘Oh, well, maybe if someone did that, or maybe if we do this, then I would consider a career in science’. Is there anything you can think of? Maybe Mary?

MARY I think it would be beneficial for students to have professionals talk to them and how they work how the profession actually is they can be educated on you know, there's a female doctor or a female microbe biologists that can can inspire people, mostly and in Greek schools, we don't get professionals coming and talking to the kids about their their jobs and how they really are.

MODERATOR No. So you think it would be really helpful if the scientists would come to the class so they can see what they are doing actually, like, in primary school. Sometimes there's like a fireman or policeman and they tell about their jobs. And you think it would be beneficial if also, a scientist would do that? Is that what you were saying?

MARY Yes, in Greece, we don't even get the fireman or the police officer. We don't have career day, for example. So yes, if an initiative like that happened, especially in middle school, I'd say and maybe also in primary school, the students can aspire to become the scientists they meet. Because something in their speech or in their everyday life inspired them to, to follow a track since I don't know. They were young.

MODERATOR Yeah, I think I understand what you were saying. Thank you. I just want to ask, though, Eleni didn't raise your hand, but I know you are a PhD student. So maybe you can tell something about how you get interested in this career?

ELENI Yes. For me, for mathematics students at least it's somehow different. I was good in maths, I studied maths, that's what I did, at least at school. So there is not something interesting behind this. But ignore that and to motivate the students engaged with maths. But in order to motivate students engage with maths when I teach, I'm trying to share with them some ideas of eh what are the applications of maths in real life and how they can use mathematics in general. And what I found interesting now in order to engage students is to use memes from the social media. So students use a lot of social media and pictures are there they are funny, sometimes they also have some meaning behind them. And these humans like seeing that okay, scrolling the social media one of their Facebook page or Instagram page, they can found some nice ethical topics or they can find their some meme some gifs related with mathematics. And this is something that makes you this makes students more interested for some reason. And there is some research behind that they started to investigate that a little bit how this kind of approach can facilitate students engagement with mathematics. So I think yeah, that's what I'm doing at least with the students that I did.

MODERATOR Thank you, thank you very much for sharing.

ASSISTANT-MODERATOR Maybe you want to ask something or add something.

ASSISTANT-MODERATOR I'd like to ask something for my.. This sounds very, super interesting. And I was wondering, would you also see that, I mean I understand that you describe incorporate, memes and videos in education? Could you believe that it would be meaningful for people that work in science communication, for example, to design videos or memes and just post them in Tik Tok and other social media platforms to engage?

ELENI Yes I think they would be super nice even in subways for example or a big screen say when you go I don't know to the supermarket if a picture appears with some funny science evidence I don't know cards for decision, something like that.

MODERATOR Something like a campaign for example.

ELENI Yes, a campaign that may be interesting. I don't know what let's say tomatoes appear in maths an example. So an example in the supermarket how you can have the tomatoes at your plate later this evening. With a small slide or a funny picture in your advertisement. There are ways to introduce science in everyday events, let's say in your every day in every your everyday life.

MODERATOR Yeah. Thank you. And also Mateo, I saw you nodding really bad. So I think you agree with Eleni. Is that correct?

MATEO Yeah, yeah, yeah. Because I mean in a more concrete way in the part of Tiktok videos, I think that they would be amazing for... Because we have to take into account which population we will reach. With this apps, we will reach young people. So it's important to use them.

MODERATOR Thank you. Is there anyone who wants to add something to that? Or maybe think, oh, no, it wouldn't work to use TikTok or I have a really good idea. Let's do this, or let's do that. So that also there were some people running their internships in schools or something, maybe Anika?

ANIKA Yeah, I think there's too much of a focus to use the ways to teach kids the things that we know from before, like, there's only that way you do it the good way. And I don't think that's the case, you can use games as well to make it more interactive or as well with painting or coloring. You can make a math exercise, and then use it like that, because I used that to get a younger girl. She was 9, and she didn't want to do any school things. But she loved to draw. So then I made a clear plastic thing, a drawing that she can only make with the right exercises for mathematics. So she had to do three plus one, okay, all the four answers are green, all the six answers are red. And in that case, she was also doing math, but not feeling like she was doing math because she was painting and coloring and that was the thing she likes. So looking in different ways to learn kids the same, but using alternatives.

MODERATOR So you say actually, that it should be interesting to the people. And maybe that's also with the initiatives to get new recruitment, maybe. Also, it should be interesting.

ANIKA Yeah, because for each case, something else works.

MODERATOR Oh, thank you. So I think we should go to the last topic now. Because we are already over time, we started 10 minutes later, so it is not that bad, but I think we should move on. And the last topic is about policies, and that promote awareness, raising actions and citizen engagement in science. And, well, this is also about awareness. And I don't know if everybody understood policies, but it's about wet en regelgeving. I just say it in Dutch I don't know it in Greece, I'm sorry. Or in Spanish or English. Good and we've also there are policies to encourage more diversity in science, because we discussed before. Well, it's like, usually white male men, middle aged that are in science. So we'll talk about this. Assistant-moderator would you first give the evidence, or?

ASSISTANT-MODERATOR Yeah, maybe can you change that slide? Okay, yeah, it's, it's pretty much things that we have discussed. So this is very relevant to what many of you have said so far that sometimes it feels like science is only for some elite people, like far away from me in different languages or in a difficult scientific language that I cannot understand. Or it's easier to access science when I am a student, but if you're not a student, if you don't have an account in the university, you don't have access. And that is all true and it has alienated citizens from science itself as if science are only for elite people and then citizens are just waiting from the media to explain them. What is happening? And we've also heard some doubts about can we test or can we not test, we don't know what to do. So there is this trend. Now trend is not the right word, but I'm not the native language. And I'm not sure how to use it that we need to, we need science to be open. And we need to give access, open access and free access to citizens because they need in every time to be able. And they have the right to go and see the data, the documents, the publications and everything without having to pay something, an order and also without having to always acquire the scientific terminology. And there are many policies like for example, some governments require that the universities have their data their scientific results offer open to the public. And you don't have to only be part of this university to have access to the data and to the results of the studies. And also, I think this is at the next slide. You know that Europe funds many research projects. And now the trend is that the European Commission, if they want to fund the project, they ask from the researchers to disseminate the research, which means to let the people know about the results of the research in the language that they can understand and in different audiences. Like, you don't have to only be not only to conferences, but also to having open sites, for example, for many in very simple words, explaining what this research has the results of the research, and the social impact and the contribution in single language in simple language and open and free for everyone to just accept it, read it, and then make up their mind and then being formed, and so on. So I'm not sure if you have ever heard maybe any policies, or if you think that there's lack of policies that, first of all, they are designed in order to raise awareness of the impact of scientific research and second, policies that promote citizen engagement in science. So I'm not sure if, for example, you wherever in the university and the university said, it's mandatory that you have after your after your bachelor or your master of your PhD, you have to speak to the public and let them know the results of your research, for example, and not only to, to a conference and to researchers, but also to a Science Cafe. Or maybe for the PhD students. Maybe that was also part of the funding you got of the scholarship, if not of the university. Or in general, if you have ever heard of some kind of policy? Yes, Mateo.

MATEO Yes. No. I would like to say that. Two weeks ago, I was asked for a national project in Spain. And they asked us companies in a compulsory way to disseminate our research in social fairs. Says there were I don't know how to say, like to present the results with a lot of researchers in in an open area in our media in my city. So and this was compulsory. Yeah, yeah. So this is a way to, to disseminate the results. So yeah, I know, this example.

MODERATOR Thank you. So they're also minority groups like women and youth and LHBTQI+ and religious, cultural minorities in science. And sometimes policies will meet women or groups posted. So there's positive discrimination. Do you think that is okay, that there are policies that discriminate minority groups In a positive way. Sophie, I saw you raising your hand.

SOPHIE Yeah, well at first I think it's okay. It's good that you have a group of diversity and different people. But I think that, I don't know how to say it in English but I think ‘dat we aan het doorslaan zijn’. Maybe you can translate it.

MODERATOR That sometimes it goes too far.

SOPHIE Yeah. Well, sometimes I read things like, oh, we need 50% of a minority group, we need 50% of women. And when I think, for example, well in my study, well the most are women. And I think that women are more naturally interested in things like social work and caring. But I think from naturally men mostly are more interested in maths and physics. And I think that's okay. And I don't think that we need policy to make group very diversity and we need is so much percent of black people and so much percent of white and no, I do not agree with that. Because, yeah, well, you need the best people in the best places. And it's.. and I don't think that is matter if there's a black woman or a white lesbian, it doesn't matter who you are, it does matter if you good or bad, your work.

MODERATOR Uhu, and do you also think that in general there should be policies to get citizens engaged in science? Should there be policies? Or do you think it's up to the person themselves, maybe?

SOPHIE Yeah, I think it's up to the person themselves, but well, I think we don't have to discriminate people. Not in a good way, but also not in a bad way. Of course. Yeah. I really think I'm really, for example for a anonymous sollicitation. So you don't see the name or the face of the people you only see where they worked and where they studied. I think that that it's more important than your gender or, or sexually orientation.

MODERATOR Thank you. Anika I saw that you had your hand up, and now you put it down. But do you have to say something about policies?

ANIKA Well, I think it's, especially with the patriarchy where we live in, it's really difficult to not take in consideration that a lot of things start at the bringing up of the younger children. So I strongly disagree with what Sophie says, but that's okay.

MODERATOR That’s okay, I said at the beginning that every opinion is okay.

ANIKA Oh, yeah, exactly. But I think it's really important that there is the difference between all the kinds of the vision of what people have and that there's a healthy discussion within a company as well. And so when it comes down to policies and doing positive discrimination, I think it's important because otherwise some people don't even get the chance to get at the same place where I as a white woman with a Dutch name can have an option to do yeah [sollicitatie]

ASSISTANT-MODERATOR Finding a job.

MODERATOR A job interview.

ANIKA Yeah, yeah job interview, that’s what it is.Because some people are already discriminated by only their name. So I agree that it would be great if it was anonymous. But in the first place, I think it's important that before we can make it anonymous, we have to make it equal because now it isn't. But this is a really complicated discussion, especially at this time in the evening in not even your native language, but..

ASSISTANT-MODERATOR I will only just come again to provide some scientific evidence, because this is actually the topic of my PhD project, and the Allinteractproject: how we can wide and diversify science and why it is important to do it. But I would only just provide a few scientific evidence to add to the discussion. And then we should focus again to topic five, because it's already late, and I'm sure all of us want to rest. And then just like everything else. So as Anika said, that we are coming from a society, which is patriarchal, and there's a lot of things that are normativity. And we grow up with many false binaries, and dualisms, such as, for example, that male and masculine people are good at technical skills, have technical skills where female women have social skills, this is actually not true. And it has explained scientifically when we grow up. And we believe that this is the case. And it has to do with how we grow up and what kind of games we have, when we are young children, and how much space and room we have to eat. But anyway to the time, we finally are at the age where we have to choose where we go, we already have these full binaries. And then we end up with a situation where in science, only the 17% are women, and the rest of them are men. And this is problematic because we need to close this up, because it's important in terms of equality, because it's not that the women are not skilled enough to be in science. It's just they're discriminated because of the gender identity. And also, it is important because we need to have balanced decision making. And it's also important because we want equally the citizens to be scientifically literate. And it's also important because of the science itself, if I may say benefits from the different perspectives and the diverse perspectives, and as humanity right now, we have to overcome many global challenges. And we need the diverse perspectives in order to overcome these challenges. And so for many other reasons, I will not go on this discussion, because we will be totally out of the focus of this focus group, which is not very focused right now. So just to get back on track on what we we're discussing. The question on our today's discussion is whether we have the chance as citizen to participate in science, and the we want to be able to participate in science that we want to have this right, and what can we do in order to be able to participate in science and only interact as a project has maybe as a hypothesis or an idea that maybe people are not very interested in participating in science, because they do not know that they actually benefit from it. Maybe we have it every day, as Mateo was saying and that we are the ones that benefit from science. And maybe if we knew that we are being benefited from science everyday in our life, maybe we would be more willing to participate. And these are allowed right, we are supposed to think of maybe some policies that would help with this. With that will help with how to engage more people in science, not only to become scientists but as citizens just participate in science and help this because in the end, what is produced by science is only for the society. It's for us. It's not for someone else. It's for us and our friends, our family, our children, grandchildren, the next generation, but also this generation. So why aren't we willing to participate? If this is happening for us? I think that was for me. I heard the sound of a hand, but I'm not sure. I don't know if moderator saw what happened?

MODERATOR The hand was raised at the beginning of your story,by Sophie if I'm correct, yes.

SOPHIE Yeah. I, I wanted to, I want to react to what assistant-moderator said, and I also attracted my attention. Because I also studied at like [unclear] for a few years, and I have learned that women and men are are different, and have different interests from naturally because, like, they're so is a very known study, that they try to raise girls like boy so they gave them toys, like cars and they gave boys like toys like dolls, and makeup. But at the end of the day, they weren't really interested in that kind of toys, and when they had a chance to choice their own toys, their choice, really, that was for their gender. So I think that it is also that like boys have more testosterone, and they have like different hormones. And their brains are different than girls. So I really think that from nature, girls are more interested in social things, and boys are like more interested in math and things. And I don't really understand what the problem is, if we have more girls in social things, and we have more boys in maths. What is the problem about that? Why? Why must everything be equal? Well, today, I don't get the point. Sorry, but I do not really agree with your opinion. And that's okay, because it’s a discussion.

ASSISTANT-MODERATOR Okay. Well, we should any minute now close the focus group. But just because I don't want to leave a wrong impression. It's one thing to have an opinion about how the system might be in the policies. And it's another thing to have the experience of many women saying that I want to go to science, but I was not allowed because of my gender or I went to science, and I was objectified and sexualized and excluded because of my identity and so on. This is a real social fact that is happening, and we have data for that. And it is oppression and we should name it as it is. And I am happy if you want to receive the research that you are talking about. We can exchange the emails through moderator and I'm also happy to share you a lot of literature in order to understand what is the difference in gender and what is the difference in sex and genitals and hormone levels and chromosomes and how gender is a social construct that has nothing to do with your hormone levels or your gender. I can share your research if you want, and you can have it in your mind to just open it or close it or delete it, and you can share it to me the research you said. But right now I think if we go on with the situation, for me, I can talk a lot, I really love for hours. But I think it's not fair for other people to keep them in the focus group. Because we should have ended the focus group at least half an hour ago. So maybe we can just pause and if you want to continue the situation, you can find my email through moderator so right now I want to come in because you have been here for two hours and we know that many of you may or might not have two hours to spend. So thank you very much. I'm not sure if moderator wants to say something to

MODERATOR No I just want to thank you all for participating because it's really helpful and it's also getting late and everyone has an opinion so I'm just really grateful that you wanted to be here and that you want to participate and I think it also will be very helpful with within the Allinteract project so I don't have any more topics but I just want to express my thank you to all the participants and well like I said your opinions will be valuable and if you have follow up questions or if you want to discuss any more things that can be done. You can contact me or if you want to come in contact with the assistant-moderator that's also okay. I think you have her email address also because I sent it to everyone and also Martha is the coordinator of this project so if you have any questions you can contact her. But I think for now we should close it and then the people who had a long day at their internship or are really tired from work or I don't know should get some rest and go to bed. So if you want to leave you can leave now and if you do discuss anything further you can contact me or assistant-moderator or anyone else. Just thank you very much, have a nice evening.

ASSISTANT-MODERATORThank you bye bye.

MODERATOR Thank you. Bye. Okay I will stop the recording first. I don't know how to do it. So I have to look how I do it. Here.