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An exploratory investigation on HOT English university courses during 2020 and 2021

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Riassunto

Il biennio 2020-2021 ha segnato in maniera profonda la vita di miliardi di abitanti del pianeta terra. L'espansione a macchia d'olio del virus SARS-CoV-2 e dei suoi relativi sintomi ha cambiato non solo le dinamiche sociali, ma anche le abitudini di moltissimi individui. Per contrastare l'aumento vertiginoso di casi di SARS-CoV-2, dal 23 febbraio 2020 il governo italiano ha imposto norme progressivamente più stringenti sulla circolazione e sull'aggregazione di persone. Tra le quali: divieto di allontanamento dal comune di residenza; sospensione di manifestazioni o iniziative di qualsiasi natura; chiusura di tutte le attività culturali, degli uffici pubblici e delle attività commerciali (salvo quelli di pubblica utilità); chiusura dei servizi educativi di ogni ordine e grado[1].

Il virus, a differenza di altri, si trasmette tramite *droplet* e aerosol, ossia una persona può infettarne un'altra «…Quando starnutisce, tossisce, parla o respira e si trova in prossimità di altre persone»[2], perciò lo scopo del governo era di ridurre al minimo gli spostamenti e gli assembramenti di persone, specialmente in luoghi chiusi. Pertanto, gli spazi aggregativi di qual si voglia natura, a eccezioni di quelli strettamente necessari come ospedali o supermercati, vennero chiusi fino a data da destinarsi. Tale cambiamento coinvolse anche le strutture scolastiche e universitarie, il cui impianto didattico fu trasferito sulle piattaforme di videoconferenza, quali *Zoom*, *Google Meet*, ecc.

Con il DPCM del 6 agosto, il Ministero dell'Istruzione diffondeva le linee guida per ciò che concerne la riapertura degli istituti di formazione, dalle scuole elementari alle università. Se regole molto più stringenti venivano poste a scuole elementari, medie e superiori, le università godettero di più libertà di azione. Se alcune decisero di erogare lezioni online fino all'anno successivo, altre, tra le quali l'Università degli Studi di Padova, risolsero di adottare diverse tipologie di erogazione delle lezioni. Secondo le *Linee di Indirizzo per la Fase 3 della didattica in tempi di Coronavirus*[3], l'Università di Padova stabilì di adottarne quattro:

1. Didattica duale.
2. Didattica *blended*[4].

[1] Cfr: https://www.gazzettaufficiale.it/eli/id/2020/02/23/20A01228/sg (Retrieved February 17, 2023).
[2] Cfr: https://www.salute.gov.it/portale/p5_1_2.jsp?id=257&lingua=italiano (Retrieved February 17, 2023).
[3] Cfr:https://www.unipd.it/sites/unipd.it/files/2020/Linee%20di%20indirizzo%20per%20la%20didattica%20fase%203.pdf (Retrieved February 17, 2023).
[4] Secondo *Linee di Indirizzo per la Fase 3 della didattica in tempi di Coronavirus «L*'insegnamento è erogato per una sua parte solo on line e per un'altra sua parte anche in presenza (la parte in presenza sarà comunque garantita anche online)».

3. Didattica esclusivamente in presenza.
4. Didattica esclusivamente online.

Il presente lavoro basa la sua ricerca sulla prima modalità di erogazione presentata, ossia la didattica duale (e parzialmente quella *blended*) e pone la sua attenzione sulle peculiarità e sulle criticità di tale medium, attraverso le esperienze e le percezioni di studenti e professori universitari.

La didattica duale consiste nell'erogazione contemporanea di una lezione sia in modalità faccia a faccia, ossia con l'insegnante in classe, con il quale si condivide uno spazio didattico fisico, e contemporaneamente in modalità telematica, ossia tramite l'ausilio delle piattaforme di videoconferenza. Durante la pandemia, le aule delle università italiane furono dotate di proiettori, computer, telecamere e microfoni ambientali. Dal punto di vista di uno studente o una studentessa che si recava in classe regolarmente, la componente frontale non veniva meno, e l'interazione senza alcun filtro, se non quello della mascherina, con il professore o la professoressa era presente; tuttavia, a coloro che per varie vicissitudini non potevano frequentare in presenza, era riservata la modalità telematica. Pertanto, chi viveva a centinaia di chilometri dalla sede dell'università, o anche coloro che un determinato giorno non potevano essere presenti in classe (per malattia, ad esempio) riuscivano a continuare senza troppe interruzioni il proprio percorso accademico.

Essendo il campo di investigazione del suddetto lavoro la glottodidattica, si è deciso di concentrarsi sull'insegnamento della lingua inglese nelle università italiane. Questo lavoro fornisce un quadro teorico chiaro dei componenti della didattica duale, ossia l'erogazione "tradizionale" faccia a faccia e quella online. Pertanto, nel Capitolo due, vengono delineate le caratteristiche del medium faccia a faccia, che si possono riassumere nella condivisione sincronica di uno spazio didattico. Ciò vuol dire che viene stabilito un ambiente comune nel quale incontrarsi (un'aula, una palestra, ma anche un parco, se si vuole fare lezione all'aperto), un orario di inizio e un orario di conclusione della lezione. Rimanendo nel senso stretto del termine, possiamo concordare sul fatto che le lezioni faccia a faccia, senza ausilio di tecnologia alcuna, stiano lentamente scomparendo.

Poiché l'erogazione è solo una componente di una lezione di lingua e che studenti, professori e attività didattiche fanno anch'esse parte del costrutto di un corso, il suddetto lavoro volge la sua attenzione a fornire una panoramica dei più importati approcci e metodi nel campo di ricerca dell'insegnamento delle lingue.

Il Capitolo due prosegue con la presentazione dell'approccio formalistico e i suoi esercizi di manipolazione e traduzione. L'approccio formalistico è basato sull'assunto che una lingua sia una somma di regole grammaticali e di vocabolario. È inoltre possibile dire che tale approccio fosse figlio del suo tempo, in quanto, agli albori del suo utilizzo, la lingua straniera più appresa era il latino, una lingua certamente veicolo di conoscenza e cultura, ma nativa di nessuno. Purtroppo, se l'approccio poteva funzionare con il latino, al momento di passare alle lingue moderne, la sua efficacia venne meno, creando delle storture tali da reputare che l'italiano di Dante e Petrarca fosse un esempio veritiero della lingua italiana del XX secolo.

Il secondo approccio analizzato è quello naturale, che si sviluppa come prodotto della rivoluzione industriale. La lingua straniera da imparare non è più il latino, bensì una lingua nazionale capace di mettere in comunicazione popoli diversi e veicolare al tempo stesso la cultura di un paese. Nella stessa sezione vengono anche menzionati i più celebri metodi naturali, come il metodo *Berlitz*, il quale diventò famoso per il quasi totale disinteresse verso la grammatica, andando a formare lo studente attraverso l'esposizione diretta alla lingua target, senza mai ricorrere alla lingua madre del discente.

Per quanto riguarda il Capitolo 2.3, inerente all'approccio strutturalistico, viene dedicata una breve digressione alla base teorica che porta alla formulazione di tale approccio, ossia gli studi psicologici di B.F. Skinner sul condizionamento operante, la linguistica contrastiva di Robert Lado e la teoria linguistica di Leonard Bloomfield. Il risultato è la creazione di un approccio che si basa sui *pattern drills,* o batterie di esercizi, e sulla sovresposizione dell'apprendente alla lingua target, attraverso di essi.

Invece, al momento di trattare l'approccio comunicativo, si sono brevemente trattati i *Threshold Levels* di Van Ek e il modello *S.P.E.A.K.I.N.G* di Hymes. Ma il quadro teorico dell'approccio comunicativo risulta più completo grazie all'innesto di un capitolo riguardante il focus umanistico, che riassume una serie di ricerche psicologiche (come la teoria delle intelligenze multiple di Gardner) e linguistico-neurologiche (come la teoria della grammatica universale di Chomsky e la *Second Language Acquisition Theory* di Krashen).

Le ultime sezioni del capitolo due sono esclusivamente dedicate ai metodi clinici, tra i quali il *Total Physical Response method*, il *Community Language Learning method*, *Suggestopedia*, e *The Silent Way*. Infine, il Capitolo 2.8 è dedicato a una breve analisi dell'approccio integrato, come sintesi, filosoficamente parlando, di tutti precedenti approcci. Ciò vuol dire che nessun approccio o metodo "viene rigettato", ma utilizzato il meglio che ognuno di essi può offrire, al fine di migliorare la qualità dell'apprendimento.

Avendo analizzato le caratteristiche dell'erogazione faccia a faccia, nonché i principali approcci di insegnamento delle lingue, il terzo Capitolo ripercorre la storia dell'insegnamento e dell'apprendimento a distanza, partendo dall'insegnamento tramite corrispondenza, ossia per lettera. Verso la fine del XVIII secolo, infatti, vari corsi di specializzazione venivano pubblicizzati sui giornali e chi interessato poteva farsi spedire delle dispense o dei manuali personalizzati su cui lavorare. Con il passare del tempo, sempre più enti, specialmente nel mondo anglosassone, si dotarono di corsi per corrispondenza, fino a fondare vere e proprie università. Il problema principale, tuttavia, risiedeva nella loro affidabilità, in quanto, secondo la *Carnegie Corporation*, molti enti di corrispondenza erano poco più che truffe (John Noffsinger in Whitman, 2018, p. 38). Per molti enti educativi era facile progettare un piano di studi, trovare chi si iscrivesse, ricevere i finanziamenti statali e non offrire poi supporto alcuno agli studenti nel momento del bisogno.

Superata l'era dell'istruzione per corrispondenza, la successiva sezione riguarda l'apprendimento multimediale. Infatti, strumenti come la radio e la tv si ponevano in un ruolo sempre più centrale nell'ambito dell'educazione a distanza. Dalle radio universitarie, fino ai primi programmi educativi in televisione. Un esempio virtuoso può essere ritrovato in *Non è mai troppo tardi* (1960-1968), un celebre programma TV della Rai, in cui il maestro Alberto Manzi proponeva un corso popolare per adulti analfabeti. Molte università tra gli anni Sessanta e Settanta iniziarono a proporre materie o addirittura corsi di studio interamente via TV, come la *Open University*, un'università pubblica britannica che iniziò la propria attività negli anni Settanta, accordandosi con alcune emittenti televisive per la trasmissione di programmi atti all'insegnamento universitario. Se la *Open University* fu pioniera dell'insegnamento a distanza tramite l'ausilio della tv, oggi eroga la totalità delle sue lezioni online.

Il successivo capitolo, riguardante l'apprendimento online, costituisce l'ultimo tassello dell'apprendimento a distanza. Si è brevemente ricostruita la storia dei supporti, dai computer a internet. Inoltre, è stato necessario distinguere le opportunità di un internet di fine anni Novanta da uno del terzo decennio del XXI secolo ed è pertanto stato utile suddividere il periodo in quattro fasi, basandosi sul lavoro di Dziuban et al. (2016) in Palvia et al. (2018):

1. *1990s – Internet Propelled Distance Education.*
2. *2000/2007 – Increasing of the Learning Management Systems.*
3. *2008/2012 – Growth of Massive Open Online Courses (MOOCs).*
4. *2013/now – Growth of videoconferencing applications and their usage in education.*

Storicamente, la prima fase corrisponde alla creazione del *World Wide Web* da parte di Tim Berners Lee, un ricercatore del *CERN*, il quale sviluppò un sistema di caricamento e visione di pagine pubbliche create dagli utenti: è ciò che costituisce l'ossatura dell'internet odierno. In questo periodo il web era basato solamente su pagine statiche senza alcun tipo di interattività; cionondimeno, alcune università fondarono le prime succursali online, verso la fine degli anni Novanta, mentre altre nacquero direttamente sul web. Con l'avvento di connessioni sempre più veloci, i servizi educativi migliorarono e, agli inizi del nuovo millennio, si affermò il periodo dei *Learning Management Systems* (LMSs). Gli LMSs sono dei programmi contenitore che permettono l'interazione tra studenti e insegnanti. Un esempio di LMS usato tutt'oggi è *Moodle*. Infatti, attraverso gli LMS è possibile postare video e registrazioni, caricare file, messaggiare con gli utenti e tanto altro. Per molti anni numerose organizzazioni esplorano programmi e tecniche didattiche per poter migliorare la qualità dell'insegnamento e, dal 2008 in poi, vista l'apertura di internet verso le piattaforme video, come *YouTube* o *DailyMotion*, anche il mondo dell'educazione si adeguò, con la diffusione dei primi *Massive Open Online Courses* (MOOCs). I MOOCs sono pertanto corsi online in modalità asincrona, aperti a tutti (o con minime barriere) e solitamente gratuiti. Se dapprima i MOOCs furono adottati in rari casi e, sembrerebbe, più come un esperimento, nel 2012, soprannominato dal New York Times l'anno dei MOOC, sorsero numerose piattaforme che raccoglievano MOOCs di varia natura, come ad esempio *edX* o *Coursera*. Infine, tra il 2010 e il 2013, vennero diffusi i primi programmi di videoconferenza, come *Zoom,* e con il passare degli anni, grazie alle loro numerose funzioni, vennero utilizzati sempre più massicciamente all'interno della didattica a distanza. I programmi di videoconferenza permettono di mettere in collegamento i partecipanti da diverse parti del mondo, permettendo loro di interagire attraverso audio e video. Inoltre, essi includono la possibilità di mutare il microfono, accendere e spegnere la telecamera, condividere lo schermo del proprio dispositivo, messaggiare e inviare file attraverso la chat, creare delle sessioni separate per alcuni partecipanti e infine permette di registrare il tutto. È possibile affermare che, al giorno d'oggi, i software di videoconferenza siano il miglior strumento a nostra disposizione per quanto riguarda l'apprendimento online.

Tuttavia, il Capitolo 3.2 informa sui maggiori limiti e le sfide riguardo l'apprendimento online. Tra i casi che vengono citati, il focus maggiore viene dato all'annoso problema dell'interruzione degli studi, che in inglese prende il nome di *dropout*. Infatti, i dati presentati indicano che coloro che seguono corsi online hanno una più alta possibilità di interrompere gli studi e tendenzialmente hanno voti medi più bassi. Nella parte finale del capitolo vengono

individuate delle variabili e dei consigli da tenere in considerazione per contrastare il problema del *dropout*, sia dal punto di vista delle organizzazioni educative, che da parte di professori e studenti.

Il Capitolo quattro, invece, affronta due questioni: la definizione teorica della modalità ibrida e le sue innumerevoli applicazioni nel campo educativo. Per quanto riguarda il primo punto, dopo aver riassunto le caratteristiche dell'erogazione faccia a faccia e telematica, la modalità ibrida risulta il punto di congiunzione tra i due medium, sebbene all'interno della stessa nomenclatura ricadano molte classi dall'erogazione profondamente diversa. Paradossalmente, una classe di lingua dove è consentito l'uso del computer per proiettare delle slide, ricade nella stessa categoria della didattica duale: ossia l'erogazione ibrida.

Successivamente, vengono presentate diverse teorizzazioni di modalità ibrida. Anche se molti ricercatori hanno cercato di teorizzare differenti tipologie, si è cercato di andare a definire più dettagliatamente come la modalità ibrida possa essere implementata. Sono state quindi presentate sei domande attraverso le quali è possibile andare a definire tale erogazione:

1. Dove sono fisicamente i professori?
2. Che tipo di frequenza studentesca è richiesta?
3. Che tipo di materiali didattici vengono utilizzati?
4. Che tipo di attività didattiche vengono svolte?
5. In che modalità vengono erogati i test?
6. In che modalità verranno erogate le sessioni di ricevimento e tutoring?

Dopodiché, il presente lavoro di ricerca restringe il proprio campo d'interesse, focalizzandosi sulla didattica duale, che in lingua inglese viene chiamata *Here Or There instruction* (HOT), in quanto richiama la possibilità degli studenti di essere in presenza (*here*) oppure di poter seguire le lezioni a distanza (*there*). Dopo aver esplicitato le sue caratteristiche e aver presentato alcuni modelli di classe teorizzati da diversi ricercatori, il Capitolo 4.2 ha come tema principale gli svantaggi e i vantaggi di tale erogazione, dal punto di vista delle università o delle organizzazioni, dei professori e degli studenti. Per quanto riguarda i vantaggi applicati alle università, il più evidente è l'ottimizzazione degli spazi. Gli insegnamenti erogati in didattica duale non devono essere ripetuti più volte, liberando aule e spazi didattici ad altri insegnamenti. Questo vantaggio può essere condiviso anche dagli insegnanti. Mentre per quanto riguarda gli studenti, è possibile affermare che una maggiore flessibilità sia sicuramente gradita, specialmente a studenti lavoratori, pendolari, persone con malattie croniche o

passeggere. Una maggiore flessibilità porta anche alla creazione di classi multiculturali, poiché studenti da diverse parti del mondo e con differenti background sociali e lavorativi possono accedere. Tuttavia, la didattica duale possiede degli svantaggi che è necessario sottolineare. Il primo è la dipendenza dalla tecnologia, infatti la buona riuscita di una lezione o di un corso dipende spesso da quest'ultima. Se talvolta i problemi di connessione non dipendono da chi direttamente la utilizza, una buona formazione del personale, nonché degli studenti e una corretta impostazione delle periferiche sono sicuramente necessari. Un altro problema risiede ad esempio nella quantità di mansioni a cui è sottoposto l'insegnante, visto lo sforzo di coordinamento di due gruppi, uno presenziale e uno online. Avendo riconosciuto nelle numerose mansioni degli insegnanti il problema maggiore, la parte centrale del capitolo è riservata alla diminuzione del carico di lavoro di questi ultimi, attraverso delle linee guida. Infatti, Zidney et al. (2019) consigliano di:

1. Semplificare la tecnologia in uso, tramite la preinstallazione dei computer e delle periferiche in aula, senza dover ricorrere al proprio dispositivo.
2. Distribuire il carico di lavoro, tramite l'elezione di figure come il moderatore della chat, che controlla i messaggi e li porta all'attenzione della classe.
3. Fornire una partecipazione più flessibile, magari tramite video e registrazioni, in modo da poter portare il gruppo allo stesso livello, senza ripete più volte gli argomenti.
4. Cercare di far combaciare il corso con il medium selezionato.
5. Formare il personale tecnico e renderlo disponibile, anche con sessioni di affiancamento.

L'ultima parte del Capitolo quattro riguarda i problemi riscontrati dagli studenti durante l'utilizzo della didattica duale, tra cui disagi con la tecnologia, condivisi anche dagli insegnanti, e difficoltà nell'interazione tra il gruppo online e presenziale.

Infine, il Capitolo cinque si basa su un lavoro di ricerca sperimentale riguardante la didattica duale delle classi di lingua inglese. L'obiettivo era cercare di comprendere le esperienze e le percezioni di studenti e professori d'inglese nel biennio 2020 e 2021. Come primo passo, sono stati concepiti due questionari, uno per gli studenti, uno per i professori. Entrambi avevano delle sezioni comuni: informazioni generali (come età e università di appartenenza), domande riguardanti la percezione della salute (per lo più concentrate sulla percezione della fatica), domande riguardanti l'interazione, impressioni sulla didattica duale e giudizi sull'esperienza della stessa. Le domande di ciascun questionario potevano variare drasticamente, poiché i ruoli

delle due categorie sono intrinsecamente diversi. Ai professori sarebbe stato inutile chiedere se, rispetto agli anni passati, il loro livello d'inglese fosse migliorato, ma tale domanda risultava piuttosto utile se rivolta invece agli studenti.

Dopo aver costruito i questionari utilizzando *Google Form*, essi sono stati diffusi tramite l'ausilio di *WhatsApp* e *Facebook* per quanto riguarda gli studenti, mentre via mail ai professori. Tramite questi canali si è riusciti a raccogliere 57 responsi da parte degli studenti e 18 per quanto riguarda i professori. È fondamentale notare che ambo i campioni non sono rappresentativi e pertanto è necessario sottolineare che tale indagine è esclusivamente di natura esplorativa.

Il questionario dei professori restituisce un quadro piuttosto uniforme della loro opinione. Rispetto agli anni passati, la maggior parte ha fatto più fatica a gestire le classi in didattica duale e spesso veniva a mancare l'interazione con coloro che erano sulle piattaforme di videoconferenza; inoltre notarono mancanza di interazione tra i due gruppi. Un altro dato rilevante è la percezione dei professori riguardo la motivazione degli studenti, che hanno rilevato come più bassa. Probabilmente, il più importante dei dati riscontrati è che solo una persona su 18 pensa che la didattica duale sia un medium più efficace rispetto al medium precedentemente utilizzato e in generale il 61,1% degli intervistati preferirebbe non ricorrere alla didattica duale in futuro.

A fine di ogni questionario è stata lasciata la possibilità di scrivere commenti sulla propria esperienza e molti dei professori intervistati hanno lasciato vari spunti di riflessione. Certi insegnanti hanno sottolineato la comodità di poter vedere il nome degli studenti tramite i software di videoconferenza, condividere link e file, ma hanno anche riscontrato difficoltà tecniche. Altri invece, la maggior parte, erano frustrati dalla poca collaborazione degli studenti online, che, secondo le loro opinioni, spesso avevano la telecamera spenta e al momento di svolgere lavori di gruppo, non interagivano con i compagni o si disinteressavano della lezione.

Se troviamo un'opinione abbastanza netta da parte dei professori, per gli studenti invece il quadro risulta più sfaccettato. Pur rimanendo in linea con il giudizio espresso dai professori in termini di interazione con i compagni, gli studenti pensano che la didattica duale sia un'erogazione tanto efficace quanto quella utilizzata negli anni pre-Covid (47,4%) e addirittura quasi il 60% in futuro avrebbe piacere a svolgere corsi d'inglese in didattica duale. Riguardo invece ai commenti, hanno anch'essi sottolineato come fosse un vantaggio poter scegliere la modalità di frequenza, che tutela anche le categorie in maggior difficoltà, ma hanno anche evidenziato quanto il medium si basi sul buon funzionamento delle periferiche e di internet.

Infine, il Capitolo 5.3 porta un'ulteriore analisi dei responsi studenteschi. Attraverso un programma chiamato *Statistical Package for Social Science* (SPSS), si è riusciti a creare delle tabelle di contingenza, o tabelle a doppia entrata. Le tabelle di contingenza permettono di individuare la correlazione tra due fenomeni. Si è scoperto che i giudizi più negativi verso la didattica duale sono stati espressi da coloro che hanno frequentato per lo più in classe (">75% in classe"), mentre generalmente coloro che hanno frequentato online reputano che: il medium fosse ugualmente efficace, faticavano di meno e percepivano lo stesso livello di motivazione. La conseguenza è che su 37 persone del gruppo ">75% online", 25 hanno risposto che rifarebbero un'esperienza in didattica duale (sette non lo sanno), mentre su 11 che hanno frequentato per lo più in presenza, la maggior parte (cinque) afferma che non ripeterebbe l'esperienza (quattro hanno risposto sì, due non lo sanno).

In conclusione, questo lavoro di ricerca si basa sulle esperienze e sulle percezioni di studenti e professori d'inglese in didattica duale; l'obiettivo di tale investigazione consiste nella sensibilizzazione verso pregi e limiti dell'erogazione presa in questione.

Tuttavia, lo studio svolto presenta anch'esso dei limiti, che devono essere sicuramente sottolineati. Il primo riguarda la rappresentatività dei dati, in quanto nessuno dei due campioni è rappresentativo, dato il numero di partecipanti; il secondo riguarda il periodo in questione. Il periodo di pandemia e di restrizioni sulla circolazione appena superato potrebbe, infatti, aver influito negativamente sull'umore, sull'ansia e sul morale generale delle persone, andando a influenzare i giudizi degli stessi. Pertanto, sarebbero necessarie ulteriori analisi in merito alla didattica duale e alla percezione della stessa.

1.0 Introduction

The past years have seen the rapid rising of online and hybrid adoptions in the language learning field. This phenomenon was probably caused by the rapid spread of the virus SARS-CoV-2 and its symptoms all over the world. The virus spreads through droplets, therefore for world governments was necessary to limit people's movements and gathering, especially in non-ventilated areas, such as schools and education buildings. After the first month of online classes, on August 6, 2020, the Italian government released the guidelines concerning returning in class after the first wave of Covid-19, and permit universities to adopt different kinds of student attendance, such as face-to-face, blended, Here Or There (HOT), and fully online. This investigation's focus will be on HOT instruction, which is the simultaneous delivery of a face-to-face and an online one.

The second chapter of this dissertation deals with one of the two components of HOT education, the face-to-face delivery. Not only its characteristics are provided, but also a panoramic of the most notorious language approaches and method are presented, alongside their theoretical framework. The third chapter, consequently, outlines distance delivery's history, from the era correspondence learning, back in the XVII century to the videoconferencing apps, and the online medium's characteristics, stressing on advantages and disadvantages. For instance, the dropout phenomenon is widely analyzed and guidelines to prevent it, are provided.

The following chapter deals with the description of the hybrid medium and its rather wide range of applications in the educational field and then on the main theme of the present dissertation: HOT education. This section is not only meant of illustrating its applications, but also pointing out pros and cons.

The last chapter, instead, takes into consideration exploratory research on teachers and students' perceptions and judgement on their experience during 2020 and 2021 HOT English language classes. Two questionnaires, one specifically meant for students, and the other for teachers, were designed and spread. 57 and 18 responses were gathered respectively and aggregated data were provided alongside both groups' comments. In the last chapter, crosstabs on students' data are provided in order to find out correlations among responses.

2.0 What is face-to-face teaching?

This chapter discusses the setting of face-to-face learning, its conditions, and how it is employed, both in the past and nowadays. However, before mentioning the attributes of face-to-face teaching, it is essential to establish a distinction between approaches and mediums, for the sake of adequate comprehension of the following pages.

According to Balboni (2014), defining a language teaching approach means selecting, within theoretical research, the foundation of language education. Hence, a theory or even, occasionally, a belief functions as the theoretical framework for a language teaching approach, while the approach itself could be seen as a matrix for methods. «Il metodo è la traduzione dell'approccio in procedure operative[5]». (Balboni, 2014, p. 10). Whereas medium, according to the Collins Dictionary, «Is a way or means of expressing your ideas or of communicating with people[6]».

Thus, face-to-face teaching, as hybrid learning or distance learning, is a medium rather than an approach, considering that face-to-face teaching can be implemented alongside various approaches and/or methods.

Even though the locution "face-to-face teaching" is widely present in several papers, especially in comparison with online teaching, or hybrid teaching, it is quite difficult to retrieve a *tout-cour* definition. Thus, I have decided to delineate the characteristics that describe face-to-face teaching. The first and probably most substantial aspect is a specified and known environment where students and teachers meet: a class, a gym, a laboratory, and even a room could be the designated environment, or classes could be conducted outside the educational structures, such as a garden or a park. Secondly, the time of start and the length are usually specified; participants are required to show up at the beginning of classes, and it is demanded to be physically present until the class is over[7]. Thirdly, a major aspect of face-to-face lessons must be summarized as both teachers and students must be in the designated place at the same time, otherwise, the class cannot take place; this means face-to-face lessons are undoubtedly synchronous[8]. Additionally, other face-to-face features, directly correlated to the first three points, can be added to the list. For instance, tests and exams are set in classrooms or

[5] Methods are the practical enactment of approaches.
[6] Cfr: https://www.collinsdictionary.com/it/dizionario/inglese/medium (Retrieved September 2, 2022).
[7] This aspect is interpreted according to culture's conception of time. For example, some Italian universities have established a 15-minute extra time that is added before and after classes, this time allows students and professors to commute to the next class.
[8] It means classes are delivered in real time. Classes cannot be followed in different time periods.

laboratories, and physical materials, such as books, are always required. Besides, tutoring hours are supposed to be conducted in presence. It is therefore obvious that face-to-face classes, in strict sense, are slowly extinguishing because of the massive use of new cheap and efficient technologies that have entered classes.

In the previous lines, the necessary aspects of the face-to-face medium was depicted. I believe it is essential to highlight the advantages that this kind of delivery might bring compared with the online version. Wuensch et al. (2006, p. 524) have summarized some of them.

1. Interaction with classmates is easier, dynamic, and more immediate compared with the online version.
2. Immediate feedback for instructors. For instance, students' body language can provide hints about their moods and attention level.
3. Face-to-face communication is faster and more efficient than online communication.
4. The student assessment process is usually perceived to be more reliable than traditional instruction.

However, the success of a lesson or of a school program cannot just rely upon a chosen medium, but other factors must be considered, for instance, the teachers, the educational buildings, and the approaches. In the following chapters, I will delineate an overview of the major approaches focusing on how they might fit in a face-to-face class and how they match not only with face-to-face medium but also with the others.

2.1 The formalistic or grammatical-translation approach

Although within academic texts the formalistic approach is usually the first to be mentioned chronologically, it seemed to appear only in the XVII century as the product of a shift in mentality for what concerns the learning of foreign languages. During the Middle Ages, upper-class students were usually mentored by foreign scholars, and were therefore naturally inclined to discover grammatical rules through the knowledge and ability of a native speaker (we could consider this example as an anticipation of the natural approach); however, during the Renaissance, language institutions rose, grammar books, volumes that regulate orthography, and dictionaries began to be published, deeply changing the way speakers and intellectuals perceive a language. Therefore, a new approach was introduced during the XVII century: the

grammar-translation or formalistic approach. The grammar-translation approach was widely used with the purpose of teaching Latin, the *Lingua Franca* of Europe, that no one recognized as their mother tongue.

The formalistic approach based its foundations on the assumption that a given language is made up of rules and vocabulary. Learning simply consisted in mastering the rules provided by the teacher, who was seen as an unquestionable authority, even though they might have little to no proficiency in that language. In addition, students were merely considered blank pages that needed to be filled with grammar and vocabulary. Yet, very little attention was given to the usage and custom of the native population(s), with the result that exercises were mainly focused on grasping a certain grammatical structure and a kind of language with no connection to the reality of current societies. Namely, poems written by Dante, Petrarch, and Boccaccio were adopted as references for the standard Italian language (Balboni Paolo, 2014, p. 19) and the didactic techniques could be recapitulated into a few categories: dictation, translation, and manipulation. Although this approach is currently used in schools and universities, it is essential to note that during the XIX century, scholars tried to adjust the role and the purposes of foreign languages in societies. If in the past centuries Latin was the only language through which culture and knowledge could be conveyed, the industrial revolution recalibrated the role of European national languages. During those years, national languages acquired a new status: a way to convey culture and communicate with other populations and other commercial partners.

2.2 The Natural Approach

As stated in the previous chapter, the formalistic one was not the first approach humanity has implemented, since the natural approach appeared to be the first language teaching approach ever used. However, as time passes, it seems to come back like waves throughout human history, even though a multitude of different theories have always surrounded it in time.

The second wave of the natural approach (I intend as the first wave the period going from ancient times until the Renaissance) was a consequence of a rearrangement of the economic and political structure, as happened to the formalistic approach and will happen to all the future approaches. On the one hand, the industrial revolution radically transformed European and American societies, which tended to be more open to influence each other; on the other hand, teaching foreign languages became a matter of modern idioms i.e., German, French, or English, rather than dead languages such as Latin. Yet, another significant rearrangement took place:

languages were finally seen as means of communicating between nations. In fact, according to Krause (1916, p. 7) «...The chief aim in teaching foreign living languages should be to bring within reach all that is good, true, and beautiful in the world, i.e., to be in direct communication with other great nations». However, not only did Krause think living languages were helpful for communication but also the keys to culture.

In addition, toward the end of the XIX century, several phonetic studies were conducted, which theorized the presence of a language learning natural order, whether it is an L1[9] or L2[10], prioritizing the oral aspect rather than the written one as if a mother was teaching her tongue to her baby (Chini & Bosisio, 2014, p. 197) .

As was stated before, an approach might be seen as the theoretical framework in which a method operates, in fact, during the period I am now focusing on, three new macro-category methods were developed:

1. Simplified Direct Method.
2. Eclectics Direct Method.
3. Phonetics Direct Method.

The first two groups of methods were mainly based on vocabulary. The Simplified Direct Method sets its focal point on gathering the most frequently utilized structures in a designated language and employing them in preorganized educational contexts. Ogden (1930) released a book within which he gathered the 850 most significant terms an English language learner should know. The Eclectics Direct Method used Ogden's text as a starting point, broadening it, and giving grammar more space.

Yet, among the others, the most notorious category was probably the Phonetics Direct Method whose most famous example was the Berlitz Method. Although its founder never released any guidelines document, Stieglitz (1955, p. 300) summarized the Berlitz method's goals: «The objective of the Berlitz Method is the fourfold aim of understanding, speaking, reading, and writing, with emphasis on speaking from the very beginning».

The emphasis on speaking skills is delivered through the employ of a target language. The teacher, who is required to be a native speaker of such target language does not allow students

[9] L1 is usually considered the mother tongue of a language user, or the language a speaker has the best proficiency with.
[10] The term L2 is ambiguous since there is no actual definition of it. It may be defined as the language(s) besides their own L1. However, it is usually meant as the language a student is learning/acquiring.

to speak in their mother tongue. Moreover, the Berlitz method appears to be prone to everyday vocabulary and situations which follow a «...Sequence in which new words and new grammatical phenomena are introduced is so arranged that explanation takes a minimum time and effort and is easily achieved without reference to the student's mother tongue…» (p. 305).

According to this quote, it can be inferred that the process Berlitz took into consideration to architect his method, serves as a draft for future didactic units or learning units. In conclusion, as it might be guessed, the face-to-face medium seems to be predominant when it comes to this approach.

2.3 The structuralist approach

Unlike the aforementioned approaches, the structuralist approach may be considered an interdisciplinary one because its foundation lies on the shoulders of two disciplines such as linguistics and psychology, which happen to be interlaced in this approach. To be more specific, linguistics is pivotal since this approach is grounded on Bloomfield's *Linguistics Theory*[11], which states that languages should be studied from the minimal and indivisible structures (such as phonemes and morphemes), and on Robert Lado's *Contrastive Linguistics*[12], whose purpose is revealing and analyzing differences and similarities among languages. While, the psychological aspect is conveyed through behaviorism, a theory rooted in Pavlov's dogs' conditioning experiments; in his early works, the Russian psychologist tried to prove that whether a stimulus is associated with a non-related signal, it can prompt an identical response. Behaviorism acquired a new and wider meaning in 1954 when B.F. Skinner coined the term operating conditioning, which «…Is the study of reversible behavior maintained by reinforcement schedules» (Staddon & Cerutti, 2003, p. 115). Through this brand-new version of behaviorism, B.F. Skinner aspired to demonstrate that languages could be learned through appropriate stimulus and reinforcements. In his *Outline Guide for the Practical Study of Foreign Languages,* Bloomfield supported Skinner's ideas, suggesting: «Above all, listen and then practice [...]. Copy the forms, read them aloud, memorize them, and then practice them repeatedly, day after day, until they become completely natural and familiar [...]. Practice everything until it becomes second nature» (1942, in Chini & Bosisio 2014, p. 201). In order to achieve Bloomfield's "second nature", researchers conceived a new modality of learning:

[11] For further information, please consult: Bloomfield, L. (1984). *Language*. University of Chicago Press, Chicago.
[12] For further information, please consult: Lado, R. (1957) *Linguistics across cultures: Applied linguistics for language teachers*. University of Michigan Press, Ann Arbor.

pattern drills[13], which helped memorization through repetitions. It is possible to recall that Pattern drills shares the same activities as the formalistic approach: translation, manipulation, substitution, and transformation were already present in the aforementioned approach (Chini & Bosisio, 2018, p. 200). Other similarities between the two may be found. For instance, students were again considered blank canvas that needed to be filled with information through a continuous over exposition to language, though, new technologies, that will be examined in the following lines, were adopted, and used extensively.

To comply with the structuralist approach two methods were developed:

1. Audiolingual.
2. Audio-visual.

The Audiolingual Method is mainly focused on the oral aspect, to sum up, Celce-Murcia in Brown (2007) group audiolingual method's characteristics in 12 points:

1. New material is presented in dialogue form.
2. There is dependence on mimicry, memorization of set phrases, and over-learning.
3. Structures are sequenced by means of contrastive analysis and taught one at a time.
4. Structural patterns are taught using repetitive drills.
5. There is little to no grammatical explanation. Grammar is taught by inductive analogy rather than by deductive explanation.
6. Vocabulary is strictly limited and learned in the context.
7. There is much use of tapes, language labs, and visual aids.
8. Great importance is given to pronunciation.
9. Very little use of the mother tongue by teachers is permitted.
10. Successful responses are immediately reinforced.
11. There is a great effort to get students to produce error-free utterances.
12. There is a tendency to manipulate language and disregard content.

[13] According to the Collins Dictionary: «A technique for practicing a linguistic structure in which students repeat a sentence or other structure, each time substituting a new element, such as a new verb, as directed by the teacher, or transforming the original structure, as in changing a statement to a question». Cfr: https://www.collinsdictionary.com/dictionary/english/pattern-practice. (Retrieved September 2, 2022).

The Audio-visual Method follows the same principles but with greater attention to images and videos.

Although the Structuralist Approach could have been included in the medium of the face-to-face lesson, record players were massively employed. On one of the two magnetic bands, a piece of speech was pre-recorded, while on the other end the students could record themselves and listen to the recording to improve their language skills.

We might conclude that the Audiolingual and Audio-visual Methods could be considered as early outlines of the hybrid medium, due to the use of devices that accompanied the classes.

2.4. The communicative approach: a theoretical framework

As often happens in didactic languages, the communicative approach was not the product of a sudden change, yet it could be seen as a slow metamorphosis that involved various disciplines, and sometimes merely beliefs over the years. The first change was probably brought by Austin and Searle and their major works, respectively *How to do things with words* in 1962 and *Speech Acts* in 1969, who set a fundamental milestone in linguistics studies. Thanks to their research, linguistics was no longer perceived as the discipline that describes languages, as structuralists used to see it, but also linguistics deals languages as communicative purposes conveyors: it was the birth of a new branch of linguistics, named pragmalinguistics. Even though Austin and Searle set the basis for pragmalinguistics, *Threshold Level 1975* and *1990* (Ek et al., 1998) not only designed a repertoire of communicative functions and notions but also introduced the concept of the threshold level itself. Communicative functions introduce the concept of which purpose a certain speaker is trying to fulfill, they are listed in six categories:

1. Imparting and seeking factual information.
2. Expressing and finding out attitudes.
3. Getting things done (suasion).
4. Socializing.
5. Structuring discourse.
6. Communication repair.

In addition, communicative notions appear to have the same purpose as the communicative functions but they are more involved with quite abstract connections like dative and objective associations, therefore concepts like time, space, consequences, age, and transition fall within the concept of notion.

In conclusion, a threshold level is the mastery of a certain set of notions and functions that allows basic proficiency and independence in the target language. The urge of pivoting from a Structuralist Approach with the purpose of giving back centrality to the communication aspect, the foundation of pragmalinguistics, and parallelly of other branches of linguistics, lays the foundation of the Communicative Approach.

Yet, it should not be forgotten that the approach itself is oriented toward communicative competence, two questions ought to be asked: how could communication be defined? and what is communicative competence?

For what concerns the communicative event, Dell Hymes (1977) proposed a model called S.P.E.A.K.I.N.G. The acronym stands for:

1. Scene and setting: setting refers to the physical circumstances in which a speech act is performed, while the scene involves more psychological circumstances, formal and informal contexts are examples of scenes.
2. Participants: who are involved in the communication process, namely the sender(s), and the receiver(s).
3. Ends: it distinguishes between purposes-outcomes and purposes-goals. The first concerns the expected outcomes in a specified culture, while the second is mainly focused on the personal standpoint of the participants.
4. Act sequences: these deal with the implemented speech acts.
5. Key: it is related to the manner, the tone, or the spirit of an act.
6. Instrumentalities: the implemented mediums, oral and written could serve as examples.
7. Norms: shared pragmatic rules shared by a community such as floor takings, pauses, silences, etc.
8. Genres: «Implies the possibility of identifying formal characteristics traditionally recognized» (Hymes, 1974, p. 61), for example, novels, poems, tv-shows, etc.

Communicative competence is another pivotal component of communication itself and, according to Balboni (2014, p. 34), it is divided into three sub-competencies. The first could be called “knowledge of language”, which not only involves the ability and the knowledge of

a target language's mechanisms (i.e., grammar, and phonetics) but also extralinguistic abilities such as proximity, kinesics, or the awareness of using gestures and objects. The second competence is "production of language", which is strictly related to the primary language skills and subskills: listening, speaking, writing, reading, dialoguing, summarizing, taking notes, and others. The third competence deals with the appropriate use of language, pragmatically and culturally speaking.

To sum up, this chapter has delineated the theoretical framework of the Communicative Approach. The aforementioned features will be constituent parts of the major methods that will be analyzed in the following chapters. However, it is crucial to emphasize that the Approach was perfectioned and expanded by other succeeding theories and discoveries, brought about in different fields such as neurosciences or sociolinguistics.

2.4.1 The Situational Method

Scholars do not traditionally consider the Situational Method belonging to the Communicative Approach's cluster, mainly because it was implemented some years before the design of the said Approach, hence Balboni (2014, p. 39) considers it a Proto-Communicative Method.

Nonetheless, it cannot be denied it shares some interesting similarities with the Structuralist Approach as well. Firstly, the didactic techniques still refer to the Structuralist Approach, in fact, pattern drills were still preferred; secondly, the method did not take into account students' previous linguistic experiences, therefore their minds were metaphorically considered a *tabula rasa.* Yet, the Situational Method has a few notable distinctions that need to be highlighted. The most crucial perhaps is the sort of language proposed, in fact, such a method bases its vocabulary on day-to-day circumstances, for instance how to order food and drinks, how to book a ticket, and some ways to have a chat with someone, are implemented in class. Another notable difference is the way a linguistic topic is presented and mastered, following the 3Ps sequence: presentation, practice, and production. The method could not include technological devices, yet the three sequences could not only be provided orally or through textbooks but also can be backed by *Powerpoint* slides, and videos. Even practice might be substituted with online exercises.

2.4.2 The Notional-functional method

This method is strictly connected to the publication of the *Situational and Notional Syllabuses* by Wilkins (1972), in which he proposed a theoretical framework for what concerns notions and functions and their usage when it comes to teaching and argued that «If teaching were based on particular types of situations, however, all of the learner's language needs would not be met» (p. 253). Although Wilkins has never defined what a notion is, he asserted that it was anything that was not a communicative function[14], in the sequent lines claimed that notions syllabus would be organized under two headings, or rather six semantico-grammatical categories (time, quantity, space, matter, case and deixis[15]), and eight communicative functions which are composed of eight varieties: modality, moral evaluation, discipline, suasion, argument, rational inquiry and exposition, personal emotions, emotional relations, and interpersonal relations.

Here are the matters that Wilkins thinks it should be taken into consideration for what concern semantico-grammatical categories (p. 260):

Wilkins' semantico-grammatical categories		
1. Time. a. Point of time. b. Duration. c. Time relations. d. Frequency. e. Sequence. f. Age.	2. Quantity. a. Grammatical number. b. Numerals. c. Quantifiers.	3. Space. a. Dimensions. b. Location. c. Motion.
4. Matter Reference to the physical world is principally a matter	5. Case a. Agentive. b. Objective.	6. Deixis a. Person. b. Time.

[14] Cfr: https://www.itals.it/nozion/nozn-o.htm (Retrieved September 2, 2022)

[15] «Relating to a word or phrase whose meaning depends on who is talking, who they are talking to, where they are, etc., for example "me" and "here"». Cfr: https://dictionary.cambridge.org/it/dizionario/inglese/deictic. (Retrieved September 2, 2022).

of deciding the semantic fields within which the learner will operate. A notional analysis is less valuable than an analysis in terms of situation and/or subject matter.	c. Dative. d. Instrumental. e. Locative. f. Factitive. g. Benefactive.	c. Place. d. Anaphora.

And

Wilkins' communicative functions			
1. Modality a. Certainty. b. Necessity. c. Conviction. d. Volition. e. Obligation incurred. f. Obligation imposed. g. Tolerance.	2. Moral a. Judgment b. Release c. Approval d. Disapproval	3. Suasion a. Suasion. b. Prediction.	4. Argument a. Information asserted and sought. b. Agreement. c. Disagreement. d. Denial. e. Concession.
5. Rational inquiry and exposition.	6. Personal emotions. a. positive. b. negative	7. emotional relations a. Greeting. b. Sympathy. c. Gratitude. d. Plattery. e. Hostility.	8. Interpersonal relations a. Status (formality). b. Politeness.

While there are categories that Wilkins thinks it should be taken into consideration for what concerns communicative functions (p. 263).The idea of functions and notions (that overcame grammar categories) presented by Wilkins had a significant role in the creation of the *Threshold*

level, which became, in 2001, after ten years of gestation, the *Common European Framework of Reference* (CEFR)[16].

The notional-functional method, thus, set the route of nowadays conception of proficiency, nevertheless, the rise of humanistic psychology and discoveries in the field of neurolinguistics, psycholinguistics, and learning psychology, set the base for the humanistic focus on language learning.

2.5 Humanistic focus: a theoretical framework.

The gradual shift from the formalistic approach to a more humanistic approach probably started in the 60s, thanks to the creation of a psychological movement named 'humanistic psychology' in 1962, whose main difference from other psychological theories was the centrality of the individual. Human psychology cannot be studied by putting aside elements such as feelings or should not be analyzed by only considering behaviors.

Abraham Maslow (1954) presented a hierarchical scale of needs for human beings: physiological needs, safety, belongingness and love, esteem, and self-actualization. Other contributions came from Jerome Bruner (1960), who revitalized Piaget's idea of developmental stages and therefore introduced the concept of scaffolding or developmental stage. The aim was to facilitate pupils' learning by imitation, and Carl Rogers in *Carl Rogers describes his way facilitating encounter groups* (1971) aimed to centralize students in the learning process by finally giving them their unicity, feelings, and inclinations.

Moreover, other discoveries set the base for the humanistic focus, as the Theory of Multiple Intelligences proposed by Gardner (2011) who claimed the IQ score[17] was no longer an adequate measure of a person's intelligence, therefore, he suggested a new point of view, starting from a pivotal subject, defining intelligence (p. xv): «An intelligence is the ability to solve problems, or to create products, that are valued within one or more cultural settings».

Moreover, Gardner asserted intelligence could be retrieved through a set of evidence (2011, p. 67):

[16] For further information, please consult: https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions.

[17] «An intelligence test score that is obtained by dividing mental age, which reflects the age-graded level of performance as derived from population norms, by chronological age and multiplying by 100: a score of 100 thus indicates a performance at exactly the normal level for that age group». Cfr: https://www.collinsdictionary.com/dictionary/english/intelligence-quotient. (Retrieved August 22, 2022)

1. **Potential Isolation by Brain Damage**: even though the brain could suffer from lesions, it might happen if the core of abilities is still functioning.
2. **The Existence of Idiots Savants, Prodigies, and Other Exceptional Individuals**: namely, even if an individual is considered a 'prodigy', they would probably excel in one specific area of human abilities.
3. **An Identifiable Core Operation or Set of Operations**:
4. **A Distinctive Developmental History, along with a Definable Set of Expert "End-State" Performances**: «An intelligence should have an identifiable developmental history, through which normal as well as gifted individuals pass in the course of ontogeny» (p. 68).
5. **An Evolutionary History and Evolutionary Plausibility**: an intelligence's roots should be traced back including the abilities that are shared among different animal species.
6. **Support from Experimental Psychological Tasks.**
7. **Support from Psychometric Finding**: although the standard tests (such as the IQ tests) seem to go against the theory of multiple intelligences, Gardner asserts that those tests involve more than one set of intelligence.
8. **Susceptibility to Encoding in a Symbol System**: human knowledge is entwined with symbol systems (for instance language) and therefore enhance its set of abilities.

After having depicted what intelligences were and having provided proof that supports their existence, Gardner individuates 8 intelligences, that are innate in all human beings, although in different forms and measures:

1. **Kinesthetic**: or the ability to use the body through a high skill-set range of ways for settled purposes.
2. **Interpersonal**: the capacity of understanding other people's feelings and motives.
3. **Intrapersonal**: the aptitude at understanding yourself, and recognize your needs, and what you want.
4. **Linguistic**: a core of operations that include the sensitivity toward words' meaning and syntactical order, the ability to follow grammatical rules and violate them, furthermore, the capacity to control the language to evoke emotions, convey information, or please.
5. **Logical-Mathematical**: the ability to think logically, with numbers, and identify patterns, and relationships.

6. **Musical**: the inclination of recognizing and detecting sounds in the environment, the sensitivity to pitch, melody, tempo, and sound intensity.
7. **Naturalist:** the ability to discriminate between living and non-living entities, as well as the recognition of natural phenomena in nature.
8. **Spatial**: the capacity to recognize a three-dimension world and manipulate the real and virtual surroundings.

Even though Gardner's multiple intelligences theory was widely accepted as a grounding theory for the communicative approach, nowadays it is broadly criticized by the scientific community for being vague, sometimes quite shady, and often without adequate evidence that supports it. Waterhouse (2006, p. 210) summarized what are the main issues:

> MI are in-tangible theorized constructs, but, if their components are specified, they can be tested. MI may require new measures, but new measures depend on clearly defined components for the intelligences, and Gardner stated that he will not define such components.

And

> Gardner asserted that his intelligences were developed "from an evolutionary perspective" […] and were supported by research […] and that neuroscientists were "in the process of homing in on the nature of core operations for each of the intelligences" […] However, there are no publications from cognitive psychologists, cognitive neuroscientists, or evolutionary psychologists to suggest that they have conducted research directed at defining or validating Gardner's intelligences.

Thus, I intended to cite Gardner's theory as one of outlines of the communicative approach, though nowadays I strongly believe it should not be included in theoretical frameworks for future language learning research, nor approaches.

The theoretical setting of the previous paragraphs shows how the study of learning processes was about to change radically, made possible by a new generation of thinkers, and scientists, however, a further step from a structuralist approach toward a more humanistic side was surely made by neurosciences, specifically by two theories which I would consider consequential: Chomsky's Universal Grammar and the affective filter's theory by Krashen. The two theories will be analyzed in the following chapter.

2.5.1 The mechanisms that govern humans' language learning

So far, this dissertation has focused on the theoretical backbone of the Humanistic Approach. This section will discuss two vital theories that had set the foundations for the Humanistic Approach: the universal grammar theory (UGT) by Chomsky and the second language acquisition theory (SLAT) by Krashen. The former mainly focuses on human's mind mechanisms at the moment of managing an L1, while the latter's intent is to create assumptions that facilitate students' L2 acquisition/learning. For honesty's sake, I admit the UGT and SLAT theories belong to one of the currents that attempt to clarify the involved mechanism of L1 and L2 acquisition/learning. Nowadays three main currents are determined (Chini & Bosisio, 2018, p. 55).

1. Innatism theories declare that each human learns an L1 in a natural, fast, uniform way despite a radically different poor degenerate input.
2. Cognitive-Functional theories: a heterogeneous set of theories that include different currents of cognitive linguistics, and non-symbolic psychologic theories.
3. Environmental theories: a set of theories that remark the fundamental role of the environment, as well as, the socializing, on children's language acquisition.

Both theories, not only form part of the innatism trend but were also strongly criticized during the following years perhaps for having been strongly disproven several times[18].

Yet, they could not be forgotten when it comes to the humanistic approach and one of its realizations, the natural method which will be analyzed in the following chapter. For these reasons, I intended to give a very brief breakdown of both theories.

2.5.2 The Universal Grammar Theory

This theory finds its roots in Chomsky's A *Review of B.F Skinner's Verbal Behaviour* (1976), in which Chomsky argues that Skinner's operant conditioning could not be considered a valid framework for an L1 learner. Chomsky justifies his position by exploring the actual kids' environment. If Skinner implies that learning an L1 is possible by repetition and reinforcement, Chomsky rejects the assumption by arguing that the stimulus to which a kid is

[18] For further information please consult *A refutation of universal grammar* by Lin (2017), McLaughlin's *Theories of second language learning* (1987), and *Krashen's Monitor and Occam's razor* by Gregg (1984).

exposed is too poor in terms of lexis and syntax to justify the mastery of an L1 in such a short time. In addition, even though children are exposed to different typologies and sizes of stimuli, they all converge to the same structures.

Therefore, Chomsky theorizes every human being is provided with a Language Acquisition Device (LAD) or a Universal Grammar (UG). LAD could be imagined as a program that needs to be parameterized through the mere exposition of the language. During the exposition, it seems learners are able to set the parameters of the LAD, by discriminating a language syntax order, morphology rules, vocabulary, and more. Thanks to this theory even children's mistakes are no longer deviance that must be corrected, but an attempt to practice a new rule. For instance, a native English speaker would probably commit the mistake 'he go' instead of 'he goes'.

2.5.3 The Second Language Acquisition Theory

The ensuing theory, formulated by Steven Krashen at the beginning of the 80s, attempts to delineate the involved mechanisms during the discovery of an L2 language.

1. A distinction between acquisition and learning.
2. The Monitor Hypothesis.
3. The Input Hypothesis.
4. i+1.
5. The Affective Filter.

The first claim the acquisition-learning hypothesis does is that the acquisition of language(s) is not a 'gift' children have, since adults are still able to acquire a language with optimal results. Secondly, Krashen (2009) discriminates between acquisition and learning. In fact, according to Krashen, acquisition is:

> [...] a process similar, if not identical, to the way children develop ability in their first language. Language acquisition is a subconscious process; language acquirers are not usually aware of the fact that they are acquiring language but are only aware of the fact that they are using the language for communication. The result of language acquisition, acquired competence, is also subconscious. (p. 10).

While

> We will use the term "learning" henceforth to refer to conscious knowledge of a second language, knowing the rules, being aware of them, and being able to talk about them. In non-technical terms, learning is "knowing about" a language, known to most people as "grammar", or "rules". Some synonyms include formal knowledge of a language, or explicit learning. (p. 14)

The major difference between the two processes is the receiver's awareness of the input[19]. Acquisition is an unconscious process that employs the global strategy of the right hemisphere of the brain (Balboni, 2014, p. 46), whereas learning is a rational and aware process that involves the left hemisphere only. Unfortunately, the outcome implies being less effective in intake[20]. Yet, another mechanism of mental checking meddles, Krashen named as Monitor, which «May be used to alter the output of the acquired system, sometimes before and sometimes after the utterance is produced. We make these changes to improve accuracy, and the use of the Monitor often has this effect» (Krashen, 2009, p. 6).

Another corollary regards the input. According to Krashen (2009, p. 62), to provide an optimal input, it must be comprehensible, otherwise, it is just undistinguishable noise for the learner. Secondly, it shall be interesting and/or relevant so that a learner is boosted to "forget" the message is in another language. Thirdly, the optimal input should be provided in a sufficient quantity, and without being grammatically sequenced[21].

The next corollary, after having depicted what an optimal input was, fixes its main point on the presence of a language acquisition/learning's natural order, that follows the mastery of certain grammatical structures before others. Below is an example.

In addition, the input must be provided according to Krashen's formula i+1, where "i" stands for the current level of the student, and "+1" stands for the zone of proximal development[22]. To sum up, all the above conditions are necessary but insufficient for the acquisition. In fact, Krashen thought that acquisition will not be optimal with a raised affective filter. To be more precise, the affective filter is a pedagogical metaphor that involves several factors that may be grouped into three main categories (2009, p. 31):

[19]The input is the processible language a learner is exposed to.
[20]Intake is the part of the input that is acquired and mastered by the learner.
[21] This last aspect is explained by Krashen (1981, p. 70) who claims that «all students may be not at the same stage. The structure of the day may not be the i+1 for many of the students», and «i+1 will be provided to students eventually».
[22] «The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers». (Vygotsky, 1978, p. 86).

1. Motivation: it is proven by a large number of studies that second-language learners who have a high level of motivation, they will perform better than their peers with lower motivation.
2. Self-confidence: people with a higher consideration of themselves tend to have higher performance in terms of acquisition and language performance.
3. Anxiety: it is proven students with low anxiety have better language skills outcomes.

2.6 Krashen and Terrell's Natural Method

Although it shares part of the name, Krashen and Terrell's natural method does not lay the foundation for Berlitz's natural method, rather it is based on Terrell's work (1977) *A natural approach to Second Language Acquisition and Learning*. In his paper, Terrell focused his attention on the centrality of students' communicative competence, which is intended «…To mean that a student can understand the essential points of what a native speaker says to him in a real communicative situation and can respond in such a way that the native speaker interprets the response with little or no effort and without errors that are so distracting that they interfere drastically with communication…» (1977, p. 326). Thus, he suggested not focusing excessively on grammar rules, rather it would be preferable to provide a large vocabulary and general syntax rules, although grammar must not be neglected, but it could not be explained one rule at a time, while it is subdued to the communication needs (both oral and written). These measures could help the transition from learning to acquisition, and, in addition, affective factors must be taken into account.

Some years later Krashen and Terrell (1983) expanded these precepts aiming at creating a curriculum[23], which undoubtedly recalls the topic order of many language textbooks. Indeed, the authors firstly highlighted the centrality of developing the primary four language skills: reading comprehension, speaking, writing, and reading; however, such skills should be set according to the audience's needs (workers might need a limited vocabulary, while travelers should implement a more expanded one), and the

[23] A curriculum is meant for the gathering of all topics and competencies that learners will gain during the course, alongside a methodologic guide, and parameters to vary the curriculum based on the different factors (who are the students, who are the teachers, sociocultural settings, available technologies, etc.), and parameters of evaluations.

sociocultural attitude toward foreign languages of a population. Besides, a further aspect is learners' new role: strategies and exercises are specifically designed to prevent anxiogenics moments and threatening activities tend to be avoided, therefore teachers need to overwatch the flow of the lessons and be a source of knowledge while making the environment "student-friendly".

Moreover, since the present dissertation focuses on the medium through which a lesson is conducted, it might be guessed the predilect medium remains the "old-fashioned" face-to-face, considering the role of educators. However, it was common for lessons to be enclosed with multimedia devices i.e., CD players, video, slides, etc. Due to its plasticity this method could be easily reshaped to fit into a hybrid or an online routine. Yet, other methods result ineffective if translated into a hybrid or an online reality.

2.7 Clinical methods

This brief chapter is going to cope with the clinical methods. Unfortunately, it is quite problematic to fetch a comprehensive definition for this trend. The reasons are two: the former regards their minor celebrity compared with the previous approaches and methods in the language learning field, and the latter is concerned with a case of partial homonymy. According to the *American Psychological Association Dictionary*, the clinical method is «The process by which a health or mental health professional arrives at a conclusion, judgment, or diagnosis about a client or patient in a clinical situation»[24], a definition that partly describes the core of the clinical method.

For clarity's sake, clinical methods are part of that branch included in the "humanistic focus", yet sometimes they were designed years before or do not directly attain from that framework, instead, they are assembled around a psychological theory (i.e. suggestology). Furthermore, another determinant aspect that differentiates clinical methods from others is the need to train teachers according to the method's principles (for instance, the silent way requires the mastery of specific boards), the necessity of small classes, often no more than 15 individuals, and the employ of distinctive props.

For these reasons, clinical methods were often considered "exotic" and difficult to implement in school programs or curricula.

[24]Cfr: https://dictionary.apa.org/clinical-methods. (Retrieved September 22, 2022).

2.7.1 Total Physical Response method (TPR)

Although the humanist approach and Krashen approach and Terrell's method were respectively introduced in the '70s and '80s, the total physical response method was theorized some years before. James Asher, a professor at San Jose State College, carried out diverse investigations, supporting that subjects tend to have better long-term retention for languages when TPR is employed. TPR can be interpreted as a comprehension method since no other skills are involved in the process of learning. The learner will be instructed by the teacher to follow simple orders pronounced in the target language, such as the request of sitting down, or grabbing the scissors, to a chain of different requests. Thus, on the one hand, the students are unlikely to be under pressure or feel anxiety, on the other hand, classes may become boring quickly, and very limited in terms of grammar constructions. Besides, it results to be helpful with small classes of children[25] due to the ludic feature this method may have. Hence, it is evident this method would hardly fit in online delivery unless a specific virtual reality[26] or virtual world[27] is built.

2.7.2 Community Language Learning method (CLL)

The CLL method was firstly inspired by psychologist Carl Rogers, who introduced a model for facilitating encounter groups (1971), previously introduced in the past chapter. This model was rapidly translated by Curran into a didactic method. According to La Forge (1971, p. 55) «CLL represents an attempt to put the insights gained by modern group psychology to work in education, specifically in the teaching and learning of foreign languages». Contrary to traditional classes, in which teachers have a central role, usually providing the knowledge of the L2 language, CLL usually reduces the floor time of teachers, handing over their pivotal role.

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[25]Cfr: https://www.itals.it/articolo/%E2%80%9Calzati-e-cammina-valenze-teoriche-vantaggi-e-limiti-della-total-physical-response. (Retrieved September 3, 2022)

[26] «Virtual Reality (VR)**,** the use of computer modeling and simulation that enables a person to interact with an artificial three-dimensional (3-D) visual or other sensory environment. VR applications immerse the user in a computer-generated environment that simulates reality through the use of interactive devices». Cfr: https://www.britannica.com/technology/virtual-reality. (Retrieved September 5, 2022)

[27] «Virtual world (also called a virtual space) is a computer-simulated environment which may be populated by many users who can create a personal avatar, and simultaneously and independently explore the virtual world, participate in its activities and communicate with others». Cfr: https://en.wikipedia.org/wiki/Virtual_world. (Retrieved September 5, 2022)

Intending to investigate thoroughly, British Council's website[28] provided a sample of CLL classrooms, which they split into five stages:

1. Reflection: students are gathered and are asked to think about what they want to chat about. Ideas or suggestions can be written on the board.
2. Recorded conversation: Students report their chosen topic in their L1, or if they feel secure, directly in the L2. The teacher, if needed, can help translate some chunks. Then, a recorded discussion starts among students.
3. Discussion: After having recorded a whole discussion, they also have a discussion concerning how the conversation went.
4. Transcription: the conversation is played and learners have to transcript it.
5. Language analysis: the teacher intervenes by analyzing certain forms, tenses, and other structures that have been used during the conversation.

Even though it seems quite difficult, the CLL method might be translated into an online delivery, although it is designed to enhance face-to-face exchanges. The above-mentioned stages can be easily conducted through video-calling programs such as *Zoom or Google Meet*.

2.7.3 Suggestopedia

In the previous chapters, different approaches and methods that were generally created in western Europe and the United States were discussed, however, Suggestopedia finds its roots in the person of Georgi Lazonov, a Bulgarian scholar, who founded and directed of the Institute of Suggestology in Sofia in the 60s. For the sake of brevity, this work will not investigate Suggestology thoroughly because of the extent of the theory, however, it could be stated that «The aim of Suggestology is to investigate the weak, or unnoticed suggestions (or suggestive signals) which come from the physical and social environment and which are absorbed into the unconscious mind before receiving a conscious expression» (Lozanov in Bancroft, 1999, p. 22), therefore Suggestopedia is interpreted as the pedagogical branch of Suggestology. In his *Suggestology and Outline of Suggestopedy* (1978), Lozanov makes three assertions: firstly, education is meaningless

[28] Cfr: https://www.teachingenglish.org.uk/article/community-language-learning. (Retrieved September 5, 2022).

if new skills are not memorized; secondly, an average person uses a minimal part of their brain[29], and thirdly, a state of hypermnesia[30] can be achieved by a suggestive setup. By achieving this state, Lozanov claims his Suggestopedia seems to improve learning by up to 25 times compared with traditional learning methods. This said efficient method's environment can be set through four components (Bancroft in Richards J. C. & Theodore R.S., 2001, pp. 101-102):

1. Authority: it appears people recall better if information comes from an authoritative source.
2. Infantilization: the employ of role play, exercises, music, and games to regain the self-confidence, spontaneity, and receptivity of a child.
3. Double-pleadenness: a major focus must be given to the learning environment, therefore music, brightness, and props shall be decided carefully.
4. Intonation, rhythm, and concert pseudo-passiveness: during topics presentation, intonation and rhythm should be varied to avoid boredom, and to achieve a state of deep relaxation (but not necessarily somnolent) (Lozanov in Bancroft, 1999: 46).

After having discussed the theoretical components of Suggestopedia, the following section aims to delineate how a sample Suggestopedia course was structured and which pedagogical activities were involved.

A Suggestopedia course usually consists of 10 study units, distributed over 30 days, thus, one study unit could be concluded in days. A study unit generally consists in a 1200 words dialogue (about 150 words are new for the learners), a list of words, and a short piece consisting of grammatical structures, derived from dialogues.

The first day is reserved to the introduction of general contents, therefore students are provided with a print of the dialogue and the translation in their language. The dialogue is read multiple times and questions are asked. The following two days focus on activities based on grammar, manipulation, vocabulary, which is called primary elaboration, or new vocabulary combinations based on the dialogue, known as secondary elaboration.

[29] Unfortunately, this is a common belief that is not true. It appears we use 100% of our brain. For more information, please consult: https://www.scientificamerican.com/article/do-people-only-use-10-percent-of-their-brains/ (Retrieved September 5, 2022)

[30]«The condition of having an unusually vivid or precise memory». Cfr:https://www.collinsdictionary.com/it/dizionario/inglese/hypermnesia (Retrieved September 5, 2022)

Dialogues, role-play, or exercises that involve the use of external constructions may be secondary elaboration valid options.

To sum up, Lozanov's method is still employed nowadays (Colliander & Fejes, 2021) and the results seem quite impressive, nonetheless, it occurs to me that this method could not be provided in an online or hybrid mode, otherwise an essential part of this method should be canceled: the environment. The use of music, and the rigorous attention on creating a relaxing environment appears to be troublesome when it is translated to an online or hybrid delivery.

2.7.4 The Silent Way

Although methods and approaches tend to highlight differences between one another, certain aspects are constant. For instance, various approaches correspond to different teacher' roles, however, instructors always have a communicative aspect. The explaining of matters, rules, and cultures is always carried out through oral speaking. Caleb Gattegno's method occurs to be radically distant from what it was seen before, since the silent way demands teachers not to speak at all.

The silent way does not seem to be based on a psychological or a language acquisition theory, rather Gattegno provides his personal view of language. A «Language is composed of phonological and suprasegmental elements that combine to give the language its sound system and melody» (Richards Jack C. & Rodgers Theodore S., 2001, p. 82). Despite his "structuralist" view of language, the silent way is a method based on functional vocabulary or a series of versatile words that are not transparent in learners' native language.

Concerning learning, Stevick & Gattegno (1974) believe the method retrieves five ideas:

1. Teaching should be subordinated to learning.
2. Learning is not primarily imitation or drill.
3. In learning the mind equips itself: learners should be free to make mistakes.
4. As it works, the mind draws: Gattegno refuses the idea of natural learning, which involves the same mechanism of learning an L1 but introduces the idea of artificial learning.
5. The teacher must stop interfering with and sidetracking those activities.

Gattegno's opinion on language and learning mechanisms brings inevitably to the design of a prototype lesson. The lesson starts by introducing a series of words students have to discover or retrieve from their past experiences, and since this method is based on pronunciation, special boards that recall phonemes are implemented in order to minimize the teacher's vocal input, yet the teacher can guide students at improving their pronunciation. Besides, students are required to manage the already introduced vocabulary by creating more complex structures such as questions, requests, opinions, etc. When a morpho-syntactical argument is analyzed, It is common that cuisenaire rods are used to help conveying the meaning.

We should agree on the fact that this method can be applied even in online classes although with limitations. Boards and rods can still be shown via screen, nevertheless, if props are shown students cannot interact with them. However, it is believed the silent way is difficult to handle by the instructor, especially when it comes to the boards, which seem to be difficult to decipher, and the lack of a structured syllabus is another relevant drawback.

To sum up, despite the limitations of clinical methods, there are certain aspects it is essential to point out. One among others is the focus on learners: in these methods not only learners are not "left behind" or "forgotten" by instructors, but they are also spurred to participate and intervene during the class. Another relevant feature is the tendency to create a comfortable environment whose aim is lowering their anxieties and improving their learning experience.

2.8 The Integrated Approach

So far, some of the main approaches and their application in the teaching and learning processes were examined. However, it is crucial to mention another aspect: the different approaches were usually designed to replace their predecessors, reshaping all the previous dictates.

Yet, in the 90s a change of mentality in the language learning field happened. Truly, the integrated approach should not be considered as the ultimate or a brand-new approach, but rather a new kind of awareness between teachers and scholars. Different approaches and methods have no longer been entities to confute or to blindly support but they have been seen as allies: methodologies and practices that belong to different approaches could be implemented in lesson plans.

For instance, in the 70s and 80s, the structuralist approach lost its supremacy due to the tediousness of its main activities – the pattern drills – and therefore avoided for almost 20 years.

However, further neurological studies in the 90s proved the existence of mirror neurons[31], leading to the re-implementation of pattern drills. Another proof might be the existence of preferences that are unique for each of us. Thus, someone might have a deductive preference, while others might prefer an inductive one, or both have to be implemented for concepts to be settled in mind. The conspicuous methodologic freedom lets classes be as varied as possible: classes could be delivered face-to-face or with the support of devices such as computers or interactive boards, online platforms, etc.

In this section, the integrated approach has been briefly outlined, while the chapter that follows moves on to consider online pedagogy, its muddled terminology, its horizons, and limitations in the language learning field.

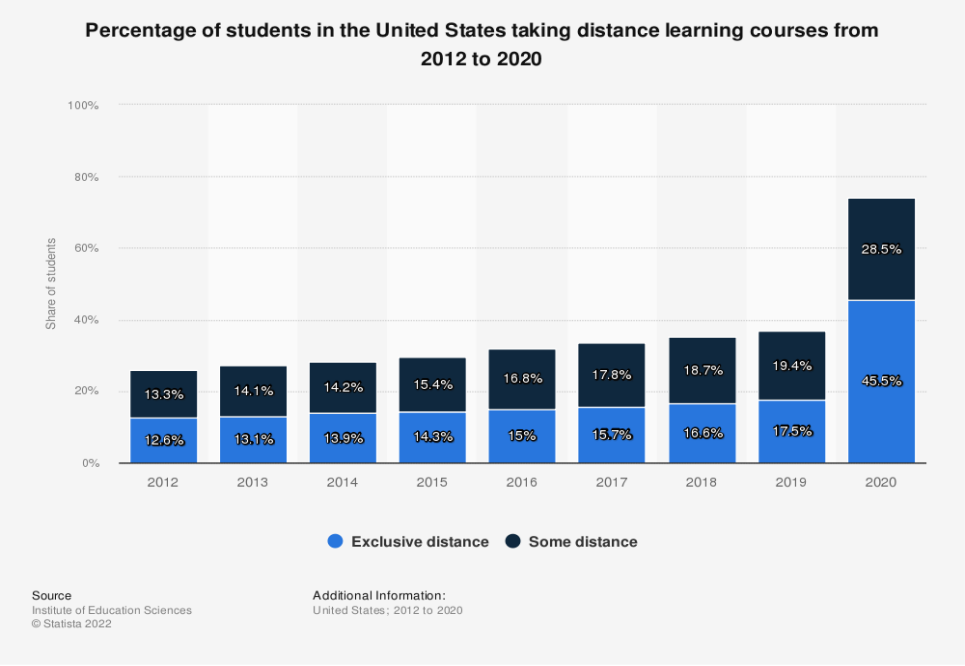
[31] «A specific type of nerve cell that shows activity when somebody observes a certain action, image, and so on. The crucial point is that they do not reside in those areas of the brain where the corresponding actions or images are expected to be perceived; instead, they are found in those areas that are used to perform an action or produce a feeling similar to the one observed». (Pätzold, 2011, p. 7).

3. What is distance learning?

In the pages that follow, the matter of distance learning will be explored, focusing on the history of the medium, its features, and its usage nowadays and then. Due to technological development, the term has adopted different connotations, which will be discussed in the following sections.

In the last two years distance learning has gathered strategic importance for educational institutions, especially after the first wave of Covid-19 hit. During 2020 and 2021 the modalities to deliver classes had to be remodeled, although distance learning was a medium which importance was already increasing over time. To prove this point, the query 'distant learning' was searched on *Statista*[32]. Below is *Statista's* chart of the percentage of students in the United States taking distance learning courses from 2012 to 2020.

Figure 2. Percentage of students in the United States taking distance learning courses from 2012 to 2020.



Cfr: https://www.statista.com/statistics/944245/student-distance-learning-enrollment-usa/ (Accessed on September 28, 2022).

[32] «Google Trends is a website by Google that analyzes the popularity of top search queries in Google Search across various regions and languages. The website uses graphs to compare the search volume of different queries over time». Cfr: https://en.wikipedia.org/wiki/Google_Trends. (Retrieved September 13, 2022).

From what concerns the share of distance learning students, a constant rise, from 12.6% to 17.5%, can be observed in the period 2012-2019, while in 2020 the percentage skyrocketed, reaching an astonishing 45.5%. This result is due to the Covid-19 restrictions, which forced students to take classes from home.

However, distance teaching (or learning) does not refer to a detailed medium, rather it should be considered as a macro medium since it only denotes the general setting of a lesson. As it was shown in chapter 2, face-to-face lessons demand to agree on a specific place, while distant learning does not necessarily need to set this parameter. Teachers and students are not in a physical shared environment, but they usually are in different and distant locations, which means students do not physically share a didactic environment.

An additional aspect would be time: it is not necessary to establish a time of start, simply because distance teaching is not necessarily synchronous, which means students can decide to watch classes at different time than they were originally provided. Besides, all the features around classes, i.e., tests, examinations, and materials are usually available online. Also, tutoring hours are supposed to be online.

Distance education has been the result of two recurrent issues: flexibility and funds.

For what concerns the flexibility, as shown in Chapter 2, face-to-face courses demand meeting in a specific place at a specific time. The precepts of the face-to-face medium leave behind a wide number of potential students who are unable to attend courses, namely full-time workers, and parents, who may have problems regarding the time and setting of a course, or people affected by disabilities or immunodeficiencies who are unable to reach classes or share an environment potentially dangerous for them.

The second issue regards an aspect of education that depends upon multiple factors such as tuition fees, the cost of accommodation, books, uniforms, transport, etc. These are key aspects when choosing to enroll in an educational path. This assumption is supported by Morrison in Van der Berg (2008:20) «The demand for education may be quite sensitive to the costs of education, so that high transport costs or school fees may reduce the demand for education substantially». Certainly, there is a multitude of collateral expenses that are indeed difficult to control, however, it seems to be proven that distant learning, especially when it comes to the online system, is generally less fund-demanding with reference to the face-to-face counterpart. Commenting on this matter, Melanie Hanson published an online article on *Education Data*

Initiative[33] about the costs associated to the American high education courses, comparing in-person attendance to online. The report claims that «For public 4-year colleges, when tuition and the cost of attendance are compared between an online degree and an in-person degree, the online degree is $10,776 cheaper», this is presumably due to external variables, such as renting fees, transport fees, meals, etc. Yet, this article fails to estimate the quality of education in an online course. This is due to the vast number of factors that mainly depend on individual features[34].

Having defined what is meant by distance education and discussed its features, I will now move on to examine its history, which went through a process of metamorphosis over the centuries. In the following chapter, I will present a succinct chronology of distance learning, with special emphasis on its implementation over time and its evolution.

3.1 The history of distance learning

This section delineates a synopsis regarding the evolution of distance education over the years. Therefore, for the sake of brevity, a detailed history of when, where, and how each educational structure has been equipped with a distance course will not be provided.

When analyzing the chronology of distance learning, the key point is its evolution; in fact, the first version of distance learning was designed very differently compared to nowadays' versions, since their features and functionalities have been developing over time. In fact, distance education is strictly correlated with the means of communication.

Thus, in the following chapter, I will refer to the first version of distance education with the term "correspondence education", simply because the only mean of communication (besides oral speaking) was mailing. In the next chapters, it will be shown how different technological discoveries have helped revise the idea of distance learning dramatically, from the discovery of radio waves to the invention of personal computers.

3.1.1 The first phase: correspondence education

Symbolically, the first testimony of early correspondence learning could be retrieved in the Bible's New Testament, through the Letters of Paul, or Pauline epistles, in which the disciple

[33] Education Data Initiative is a small group of researchers with a mission to collect data and statistics about the U.S. education system and organize them in an accessible, comprehensive fashion. For more information, please consult https://educationdata.org/. (Retrieved September 14, 2022).
[34] i.e., personal preferences toward professors, the medium itself, peers, and more.

explained and discussed the doctrines and controversies of early Christianity to the recently converted communities. Although the correspondence learning medium might have been employed in later centuries, there is no evidence to support this affirmation.

In the past centuries mailing was not considered a reliable way of communication, and education was usually confined to the upper classes, who could economically afford a private instructor and/or send their pupils to religious institutions to receive their education. In other words, mailing was ignored for many centuries, but thanks to the creation of reliable national post services, the XVIII century saw the origin of the first correspondence courses. On the Boston Gazette of 20th March 1728, Caleb Phillips advertised his shorthand[35] course, claiming «Persons in the Country desirous to Learn this Art, may by having the several Lessons sent Weekly to them, be as perfectly instructed as those that live in Boston». (Holmberg in Sleator, 2010, p. 320).

The XIX century was the most prolific moment for correspondence training. It is proven by Lund's *Weckoblad No.1833*, a weekly newspaper associated with the University of Lund (Sweden), where a composition distance training was announced for both men and women (Holber in Özer, 2022, p. 195). An additional attempt was made by Isaac Pitman in 1840, who taught shorthand, by inviting students to transcribe passages of the Bible and send the transcripts to him. An attempt of teaching foreign languages was made by Charles Toussaint and Gustaf Langenscheidt who instituted in 1856 a written course for all Europe; the whole course consisted of students receiving content materials in the form of textbook chapters, self-exercises, and worksheets, which makes this model self-learning, self-teaching, or a home study program (Tekiner, 2010). Therefore, in Toussaint and Langenscheidt's language course, students were not supposed to submit assignments, and questions or clarifications were discouraged. However, the most noticeable effort was probably made by the University of London a few years later. In 1858, the United Kingdom government granted that the University of London could deliver examinations overseas. This meant students were no longer required to reach London to take an exam.

In the late XIX century, not only the number of institutes that implemented correspondence courses dramatically increased, but also new correspondence schools appeared on American soil. In 1874, the Illinois Wesleyan College equipped itself with correspondence courses, and in 1883, the Correspondence University was founded. A few years later, Skerry's College

[35] «A fast method of writing using special signs or shorter forms to represent letters, words, and phrases». Cfr: https://www.ldoceonline.com/dictionary/shorthand. (Retrieved September 16, 2022)

provided a correspondence course for those who wanted to pass the Civil Service examinations, and in 1887, the University Correspondence College, based in Cambridge, offered distant correspondence courses to prepare students for the University of London's external degrees. Due to the size of a country such as the United States of America and therefore the great distance between cities, correspondence courses began to spread more rapidly on the American side of the Atlantic Ocean. In 1892, two major universities decided to integrate several distance courses: Penn State University and the University of Chicago became the first traditional institutions to do so in the U.S. Since these courses were designed for people who lived in rural areas, courses usually regarded agricultural matters: plant life, farm drainage, horse breeding, propagation of plants[36], etc. The first appearance of distance education on the Australian continent dates to 1911, with the University of Queensland.

Although this medium has been spreading across the European and American continents, correspondence learning, especially when it comes to language learning, holds sundries of drawbacks. In my considered view, the most obvious disadvantage is the lack of a didactic figure. A teacher might prevent students' mistakes and give them useful hints to improve their language skills. Through correspondence learning, students cannot benefit from instant feedback, nor receive immediate solution to their doubts. A further inconvenience could be found in the absence of speaking exercises, aside from oral pattern drills. Exercises such as roleplays cannot take place during correspondence learning. However, the most relevant point is the poor academic reputation of correspondence courses, aside from those courses and degrees provided by universities or colleges. As a matter of fact, in 1926 the Carnegie Corporation[37] commissioned a study on correspondence schools. In this report, John Noffsinger noticed that «An appallingly large proportion of the schools are little better than frauds» (in Whitman, 2018, p. 38), and in the 70s more and more American correspondence schools were accused by newspapers of not providing an adequate education, nevertheless they were able to access to considerable government funds (Whitman, 2018, p. 21).

[36]Cfr:https://www.psu.edu/news/academics/story/we-are-wherever-you-are-penn-state-marks-125-years-distance-learning/. (Retrieved January 13, 2023).

[37] «...One of America's oldest grantmaking foundations. Established in 1911 by Andrew Carnegie to promote the advancement and diffusion of knowledge and understanding. In keeping with this mandate, the Corporation's work focuses on the issues that Andrew Carnegie considered of paramount importance: international peace, the advancement of education and knowledge, and the strength of our democracy» Cfr: https://www.carnegie.org/about/#:~:text=Carnegie%20Corporation%20of%20New%20York%20is%20one%20of%20America's%20oldest,diffusion%20of%20knowledge%20and%20understanding. (Retrieved September 13, 2022).

Correspondence learning was slowly but steadily replaced, perhaps due to said drawbacks, but also thanks to new communication discoveries that brought a shift in the distance education system. During the better part of the XIX century, mail was believed to be the most efficient method to convey knowledge and education when students were not able to reach school structures, however during the late XIX century, new discoveries revolutionized the world of communication. For instance, the discovery of radio waves, and consequently, in 1897, the deposition of Guglielmo Marconi's patent, in which he described the first version of a radio. This major invention also brought distance education to a new milestone: the era of plurimedial learning, which will be analyzed in the following section.

3.1.2 Plurimedial learning

In the previous chapter the history of correspondence learning and its applications were outlined. However, with the advent of media such as the telephone, the radio, and the television, a new phase got the upper hand: the era of plurimedial learning.

To grasp what plurimedial learning is, it is necessary to connote the expression monomedial learning; during correspondence learning each envelope was addressed to a single entity (the student), therefore a one-to-one relationship was established. With the term plurimedial, the target is no longer a single entity, but rather a multitude. Instruments such as webinars or videos are good examples of plurimedial instruction.

Due to the shared effort of numerous researchers, the radio rapidly took over as the media leader in the distance education field. Although the development of the radio was linked with military communications, radio transmissions were also implemented in many fields, from entertainment to educational purposes.

For instance, BBC broadcasted interactive classes for some scholastic courses, and Radio Canada added a radio course designed for farmers who were interested in updating their agricultural methods without leaving their cultivation (Bontempelli, 2004, p. 2). The success of educational radio was so significant that nearly forty years after Marconi's discovery, more than 200 university-owned radio stations broadcasting educational programs[38] rose in the United States only.

An additional instrument that was massively employed, especially in the first half of the XX century was surely cinema. Movies were used within certain limits (i.e., war purposes and/or

[38] Cfr: https://www.britannica.com/topic/distance-learning (Retrieved September 22, 2022).

propaganda), they were extremely effective to train the lower-income, and thus illiterate share of the population. In the following years, the employ of sounds and videos were not underestimated by governments, and during the 30s, numerous television stations were grounded: the Compagnie Générale de Télévision (1931) in France, the Ente Italiano per le Audizioni Rafiofoniche (1934) in Italy, BBC Television Service (1936) in the United Kingdom and, the Experimental Leningrad TV Center (1937) in the former URSS.

Yet, educational programs on television gained fame during the 60s and 70s. In the 50s, the University of Iowa started to develop instructional courses headed for television, and in the 70s institutions like the Dallas County Community College District started to offer university courses on television: Introduction to Business, English Composition, Composition, Literature, and American Government (Agler & Pohrte, 1976, p. 39).

A notable attempt outside high-level education institutions was made by RAI[39] and the Italian Ministry of Education, with a program called *Non è mai troppo tardi*[40] (1960-1968). The program consisted of a night course for illiterate adults, who aimed to take the elementary license. Although no reliable data has been published, it is estimated that thanks to the tv show, 1.5 million Italians passed the elementary exam (Bontempelli, 2004, p. 2) and therefore reached the minimum literacy level.

Meanwhile, the rise and development of smaller and more powerful computers and external devices started a further revolution in distance learning mediums. To set a comparison term, in 1943 the ENIAC, which is commonly known as one of the first computers, occupied a surface of 180 square meters and weighed approximately 40 tons, while the first Apple MacIntosh, considered one of the most successful personal computers, launched forty years later, weighted approximately 7.5 kg, and occupied a surface of 0.0672 square meters. Alongside the resizing of computers, storage devices underwent the same process: Floppy disks, VHSes, CD-ROMs, and DVDs not only shrunk their sizes but also improved their storage capacities. For this reason, uncountable courses, and subsidiary materials were developed. The most renowned institution to implement television courses, VHSes, and DVDs, was Open University (OU) a British public university. According to Wilson (1974, p. 534) «The aim of the OU is to widen the opportunities for higher education by giving a second chance to those who can profit from it, but who have been, for one reason or another, unable to go to a university or a college on leaving school». During the first years after its foundation, OU delivered its courses in different

[39] English translation: It is never too late.
[40] RAI stands for “Italian radio and television”. It is the broadcasting company owned by the Italian state.

mediums: from written material to television. As a matter of fact, January 3, 1971, the OU aired its first university related program, and television course programs were ended 35 years later[41], in 2006. Nowadays, OU delivers its courses through podcasts and online broadcastings. As the internet entered our houses and our lives, generally media, like tv programs and mails, were quickly replaced by a wide variety of online tools. The impact of online learning and its design will be the focus of the next chapter.

3.1.3 Online learning

The past chapter traced back the history of distance education, from correspondence learning to education delivered by television and radio. In this chapter, an overview of online learning will be provided. Before analyzing its characteristics, it is necessary to discriminate a few terminologies that may obscure comprehension, such as e-learning, fully virtual learning, distributed learning, and many others. Despite all expressions share the same connotation, for clarity's sake, only the expressions online learning, online education, and online teaching will be employed.

Online education shares its fortunes and misfortunes with the creation of the internet. In 1969, the U.S. military conceived a primitive communication system, named ARPANET (Advanced Research Projects Agency NETwork). ARPANET was established to make four computers communicate with each other: the computers were respectively placed at Systems Development Corp[42] in Santa Monica (California), at the University of California, in Berkeley, at the Massachusetts Institute of Technology (MIT), and a device was placed in the Pentagon[43]. With time, the number of computers that were connected with ARPANET increased significantly, in fact, in 1976, there were 63 of them, hence a new term was coined: *international networking*, which rapidly was shortened into "the internet". During those years, ARPANET was split in two: one version was intended for military purposes, while the other version was designed for civilians. During the 80s, new but similar versions of ARPANET were implemented to make transmissions more reliable and efficient. Afterwards, a disruptive

[41] Cfr: https://web.archive.org/web/20170425114843/http://www3.open.ac.uk/media/fullstory.aspx?id=9898 (Retrieved September 24, 2022).
[42] A private software house, founded in 1955 that works in the aerospace industry.
[43] «The Pentagon is the main building of the US Defense Department, in Washington. The US Defense Department is often referred to as the Pentagon». Cfr: https://www.collinsdictionary.com/it/dizionario/inglese/pentagon (Retrieved September 28, 2022).

invention was released by a CERN's[44] researcher, Tim Berners Lee, who, in 1991, designed the World Wide Web, which allows users to do mainly two things: upload public pages (also known as websites), and visit those pages. Because of the World Wide Web, the internet started to be spread commercially, even though the service was expensive and slow if compared with the nowadays standards. In addition, all the websites were static and that means they were nothing other than a wall of text and a few images. Even though that version of the internet may be considered rudimental, the firsts web-based courses were implemented by selected high educational institutions. Years later, researchers such as Dziuban C. et al. (2016) in Palvia et al. (2018) structured the stages of online education from the 90s to nowadays.

5. 1990s – Internet Propelled Distance Education
6. 2000/2007 – Increasing of the Learning Management Systems
7. 2008/2012 – Growth of Massive Open Online Courses (MOOCs)
8. 2013/now – Growth of videoconferencing applications and their usage in education

In the first phase, online teaching shares little features with the current online teaching concept; as stated in previous lines, the available technology was limited and slow. All the websites and programs were not interactive; hence, no video could have been uploaded or downloaded without requiring a long waiting time, causing that the first online courses were text based and asynchronous.

Despite the limits of the internet, in 1991, quickly after the release of the World Wide Web protocol, the University of Phoenix launched its first online courses. In the following years, other American non-profit universities decided to move toward online teaching. For example, in 1998 New York University opened a subsidiary: New York University Online. In the same year, California Virtual University (which was a consortium of local universities that provided more than 1600 courses) was founded, and the University of Maryland opened an online branch (Kentnor, 2015, pp. 28-29). If these online universities were simply branches of institutes that based their didactic on the face-to-face medium, in 1993 a full-online university was founded, the Jones International University, which was named after its founder, Glenn Jones. Jones international University was not an isolated case, but many other institutions followed its path,

[44]CERN (The European Organization for Nuclear Research) is a European research organization that operates the largest particle physics laboratory in the world. Cfr: https://en.wikipedia.org/wiki/CERN. (Retrieved September 28, 2022).

such as Florida Virtual School in 1997. Even though these first attempts were admirable, most of these institutions were shut down. The causes may be found mostly in the poor-quality education, in fact, at that time, institutes were not able to design appropriate online student plans, besides, online tools were extremely limited compared to nowadays' possibilities.

The new millennium set the beginning of a new phase for online education: the era of affordable high speed cable modems and learning management systems (LMSs) (Dzubian et al., 2016, pp. 174-175). To comprehend what LMSs are, they can be interpreted as programs that allow students and teachers to administer lessons, deliver materials, and interact with each other when it is necessary. They are composed of two main sections: a forum category, where users can post, comment, or share classes news, an area where teachers can upload announcements, homework, or additional activities that might improve the learning process, such as prerecorded lessons, or videos. In addition, other functionalities could be implemented, for instance some recent LMSs include games or quizzes, and systems for taking online tests or exams. Some programs, both free and under subscription, that readers might already know are: ATutor, Blackboard, Moodle, Sakai, etc. LMSs are tools that pair perfectly with online learning, but also the traditional medium could implement this kind of applications. Nevertheless, an increasing number of LMSs implementations do not give credit to the technological improvements of the first decade of the XX century. Not only faster and more reliable internet connections were developed, but also online databases, encyclopedias, and search engines for high education purposes were launched in those years: Wikipedia in 2001, a free encyclopedia compiled by users all over the world, Google Scholar in 2004, ResearchGate in 2008, and many other educational-oriented services.

During said decade another massive trend took place in the online environment: the advent of a video era with the foundation, among others, of Vimeo (2004), DailyMotion (2005), YouTube (2005) and Grouper (2006). The launch of video platforms led to the creation of the first Massive Open Online Courses (MOOCs) a few years later. The acronym MOOCs provides a reliable definition.

1. Massive: it is designed to be attended by many people.
2. Open: everyone can enroll, material is usually not under copyright, and therefore replicable.
3. Online: it will be delivered entirely on the internet.
4. Courses: they included a succession of lessons, based on a shared topic.

The term MOOC was coined to describe the structure of a course called *Connectivism and Connectivity Knowledge* brought by the University of Manitoba (Canada) in 2008. Stephen Downes and George Siemens, the reference professors, were able to gather 25 students that attended the course in class, while 2300 more followed classes asynchronically via web. The whole course was arranged to favor interactivity and the course material could be retrieved from different sources on the web.

In 2011, Stanford University offered three free MOOCs: *Introduction to Artificial Intelligence*, *Machine Learning*, and *Introduction to Database*. The courses also included quizzes with instant feedback and interactional videos. However, there were drawbacks: students could not clarify their doubts, as no tutoring session was available, and Stanford did not release any degree[45]. In these years several MOOC services were launched and two typologies of MOOCs were established: cMOOCs, and xMOOCs. The former requires students to «Seek and share information through networks of distributed online resources. The actual course materials and course content are defined by the learners as the course progresses. It has no formal curriculum and features unstructured sessions based on continuous learning» (Goopio & Cheung, 2021, p. 181), the latter, instead, involves a much bigger contribution from the instructors, who choose and predetermine the course material.

The year of the biggest development of MOOCs is 2012, as claimed by the New York Times[46]. In fact, several online services were launched. For instance, thanks to a partnership between Harvard and MIT, a non-profit start-up called edX was founded. The company launched a course provider website that gathered 370,000 students in the first year only. Another notable instance may be Udacity that nowadays has provided courses to more than 1.5 million students, or Coursera, the most notable provider among the others, that partnered with almost 300 entities among companies and universities[47] (especially with institutions that have a long history in correspondence learning field). In addition, certain MOOC providers such as Coursera offer the chance to enroll for full-online bachelor's and master's degrees offered by colleges and universities. MOOC providers are indeed useful tools that allow people to access education, nevertheless, there are certain relevant shortcomings that must not be underestimated.

[45] Cfr: https://news.stanford.edu/news/2011/august/online-computer-science-081611.html. (Retrieved September 29, 2022).
[46] Cfr:https://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html (Retrieved October 1, 2022).
[47] Cfr: https://www.coursera.org/about/partners/es. (Retrieved October 1, 2022).

The first drawback regards the impossibility of having a student-professor relationship. Students cannot express doubts regarding everyday lesson topics, and professors do not realize whether their explanations are effective for students or not. This is a shared problem in the whole distance learning field. Another issue would be high attrition rates or dropouts (Zakharova & Tanasenko, 2019). If on the one hand MOOCs help millions of learners to gain access to free (or at least cheap) education, on the other hand, high dropout and retention rates occur (for retention rates I intend students who have not completed the course) among enrolled students. According to Goopio & Cheung (2021), although enrollments in certain courses have been relevant, retention percentages can reach rates as high as 90%. The reasons for these high percentages are multiple, but Lee & Choi (2011) proposed a model regarding retention causes; nonetheless, this model will be modified by several scholars (for further information, please consult Chapter 3.2). Below is the table concerning retention's causes.

Student Factors	Course/Program Factors	Environmental Factors
1. Academic Background 2. Relevant experience 3. Skills 4. Psychological Attributes	1. Course design 2. Institutional supports 3. Interaction	1. Work commitment 2. Support environment

High retention rates can be triggered by many causes, some of which might overlap. For instance, a student might have enrolled for a course that requires prior knowledge, which they do not possess or which they underestimated, the chosen MOOC does not encounter their learning styles or their preferences, or simply because they cannot balance their life obligations. Lee & Choi pointed out a significant number of factors that may lead to a student dropping out, another reason neglected in the previous table of content is the lack of motivation connected with the relatively small investment.

After 2012, MOOCs have continued to be a relevant part of online education, even though a major revolution drastically changed the perception of the online learning field: videoconferencing services.

The history of conferencing programs intertwines its path with an Italian immigrant in the U.S., Giorgio Coraluppi, who founded a company named Compunetics, that began to work with NASA. In the 50s NASA developed a system that «Managed to connect all the people on the ground and in space through a network of 18 ground stations and three ships in different oceans»[48], however the system was difficult to configure and to manage, since this mean of communication consisted in plugging and unplugging cables in different ports. In the 80s, NASA needed an upgrade of its communication system and hired Compunetics, that developed the Voice Switching System, a digital system which include vocal conferences with multiple participants, without requiring a massive interference from humans. This system was installed in 1992 and in the following years it was chosen as the basis for all the communication systems via web. Yet, 10 more years would have been needed to implement the video function, and therefore developing a videoconference program.

According to the Merriam-Webster dictionary, a videoconference is «The holding of a conference among people at remote locations by means of transmitted audio and video signals»[49]. Thus, videoconferencing apps are services that permit communication with one or more people via video and audio. In recent years, videoconferencing app companies have added a number of features, while implementing the preexisting ones.

For instance, in 2013, Zoom, one of the most popular videoconferencing app, allowed a capacity of 25 people per video chat, while in 2022 a single videoconference withstood up to 1000 users, depending on the license[50]. In addition, other options are usually available to improve the online user experience on these programs. Currently, all videoconferencing apps allow users to:

1. Mute or activate the microphone.
2. Turn on and off the camera.
3. Share a participant's screen (it is possible to share multimedia products, for instance, a YouTube video).
4. Text and send files through a text chat.
5. Split participants into breakout rooms and allow them to work separately.
6. Record the sessions.
7. Activate captions in various languages.

[48] Cfr:https://spinoff.nasa.gov/Spinoff2020/it_2.html (Retrieved October 4, 2022)
[49] Cfr: https://www.merriam-webster.com/dictionary/videoconferencing. (Retrieved October 4, 2022).
[50] Cfr: https://support.zoom.us/hc/en-us/articles/201362823-Hosting-large-meetings (Retrieved October 4, 2022).

Videoconferencing programs appear to be the most efficient way to commute all the ingredients of traditional lessons, although there is no physical interaction between learners and instructors, since verbal communication between the two parties is possible and often sought. Videoconferencing programs allow chatting privately with one or more participants. Another aspect that is well-translated is the board, which is replaced by sharing the laptop's screen. Sharing the screen may limit those who enjoy handwriting – although there are peripherals that allow handwriting and signs to be translated on the screen – besides, it allows you to show videos, applications, files, and more. Breakout rooms are a good alternative for workgroups. Another advantage is the opportunity to integrate other online services, that may enrich the learning experience. For example, survey websites help monitor the students' opinion, helping professors understanding whether major/minor changes should be done to the course; or quizzes that enhance competitiveness and generally exploit more the opportunities that the internet provides.

However, the online world of education does not limit to these solutions, in fact, in the last decade many educational platforms have been developed, some of them specifically designed for language learning, such as Babbel, Rosetta Stone, DuoLingo, etc.

Although they might be dramatically different from each other, they are generally characterized by a battery of exercises and tests based on different approaches.

To sum up, online education has had an astonishing development from the 90s until nowadays, and today the majority of products and services presented in this chapter can be integrated into online education and therefore do not exclude each other. LMSs are still employed to post additional content, or as test platforms, together with videoconferencing apps; besides, educational services, and MOOCs may be part of the integrative materials.

This section has attempted to provide a brief history of the plurimedial era, from the rise of radio and television to current online learning.

In the following section, challenges and limits that institutions have to face at the moment of transitioning from a face-to-face learning environment to an online educational system will be point out.

3.2 Online Education: challenges and limitations

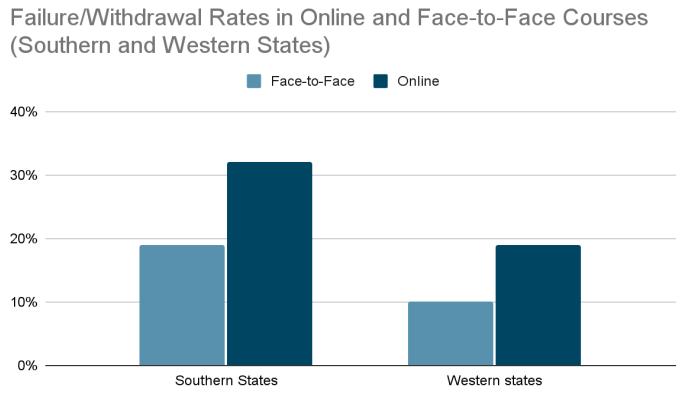
In the last twenty years, online learning has become a central theme for worldwide education, and nowadays more and more students are enrolling in online courses. The role of

online education is pivotal, especially for adults, workers, people affected by disabilities, and generally individuals that cannot travel for long distances. Another advantage lies in more affordable courses, as discussed in the previous sections.

However, online education faces various restraints, that seem to merge in a main set of consequences: dropout, retention, withdrawal, or failure. Although they might sound different, they all refer to one concept: the act of leaving or interrupting one's studies. Hence, if a student that attend in-person and an online student are deciding whether to interrupt their educational path or not, the online student appears to be more inclined to do so.

To further prove this point, the Community College Research Center (CRCC)[51], in 2013, conducted a massive investigation that compared retention and dropout rates between face-to-face and online degrees. What stands out is that online attenders' failure or withdrawal rates, from Southern and Western[52] States in the U.S., were significantly higher compared to traditional courses in the same area.

Figure 2. Failure/Withdrawal Rates in Online and Face-to-Face Courses (Southern and Western State)



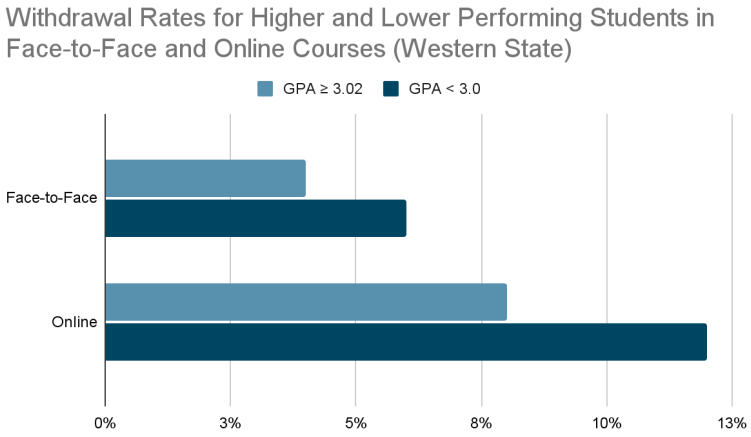
Cfr:https://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-online-course-outcomes.pdf.(Retrieved October 24, 2022).

[51] «The Community College Research Center (CCRC) is an independent research center that studies two-year colleges and open-access four-year institutions in the United States. Its researchers use qualitative and quantitative methods to assess programs, policies, and reforms in areas including remedial education, academic advising, institutional effectiveness, and college transfer. CCRC is housed at Teachers College, Columbia University, and is led by Thomas W. Brock». Cfr:https://en.wikipedia.org/wiki/Community_College_Research_Center. (Retrieved October 18, 2022).

[52] Southern and Western state samples consisted of 95.000 students, at 57 community colleges tracked from 2004 to 2009. Cfr: https://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-online-course-outcomes.pdf. (Retrieved October 13, 2022).

Besides, the study pointed out not only significantly higher dropout rates for students with lowers GPAs[53] in Western State[54], but also higher withdrawal rates for students with average to high GPAs.

Figure 3. Withdrawal Rates for Higher and Lower Performing Students in Face-to-Face and Online Courses (Western State).

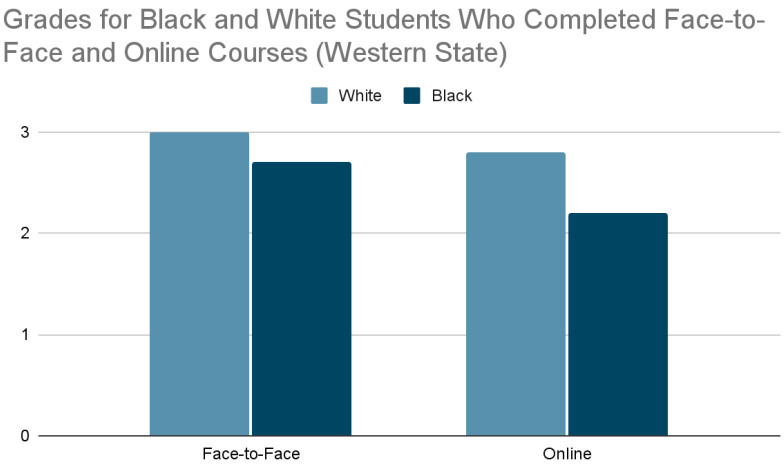


Cfr:https://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-online-course-outcomes.pdf (Retrieved October 24, 2022).

Moreover, since the investigation was set in the U.S, it was noted that grades in both the black and white ethnicities tended to be lower when students enrolled in an online course. Curiously, the most significant difference was visible among black people.

[53] GPA is the acronym of "Grade point Average", a score commonly used in the American school system. It is obtained by the sum of grades, divided by the credits.
[54] «Analysis based on 51,017 degree-seeking students tracked from the fall term of 2004 through the spring of 2009». Cfr: https://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-online-course-outcomes.pdf. (Retrieved October 13, 2022).

Figure 4. Grades for Black and White Students Who Completed Face-to-Face and Online Courses (Western State).



Cfr:https://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-online-course-outcomes.pdf (Retrieved October 24, 2022).

It is crucial to highlight that these results refer back to 2013, since the technology available at that time consisted in less reliable broadband connections, and fewer services, compared with present standards. It seems no massive studies were conducted thereafter (or I was not able to find them), although these problems are still perceived nowadays. To find out an explanation to data above, and the phenomenon of online retention, I hereby propose the modified version of Muljana & Luo's (2019) tab, originally assumed by Lee & Choi (2011).

One of the main causes of online dropout concerns students' individual features, divided into behavioral characteristics, demographic variables, and inner/outer personal variables.

1. Behavioral characteristics.
    a. Self-regulation: «Self-regulation is not a mental ability or an academic performance skill; rather it is the self-directive process by which learners transform their mental abilities into academic skills» (Zimmerman. B, 2002, p. 64).
    b. Metacognition: «The processes used to plan, monitor, and assess one's understanding and performance. Metacognition includes a critical awareness of a) one's thinking and learning and b) oneself as a thinker and learner»[55].

[55] Cfr: https://cft.vanderbilt.edu/guides-sub-pages/metacognition/. (Retrieved February 9, 2022).

c. Self-efficacy: personal satisfaction.
d. Self-discipline: the ability to control one's behaviors and emotions.
e. Locus of control: the extent to which people claim to have some level of personal control over their daily experiences. This sense of control can be internal (people who believe that events are the result of their own behavior) or external (people who believe that events are controlled by chance or other people's influence) (Sagone & Caroli, 2014, p. 319).
f. Learning strategies: «They can be defined as behaviors of a learner that are intended to influence how the learner processes information» (Mayer, 1988, p. 11).
g. Learning satisfaction: it is the result of the activities that students engaged during the learning sessions. In addition, satisfaction can be viewed as a comparison of expectations and how classes or the education paths are received, either with pleasure or displeasure (Wu et al., 2015, p. 2850).
h. Flow experience: «A subjective state that people report when they are completely involved in something to the point of forgetting time, fatigue, and everything else but the activity itself» (Csikszentmihalyi et al., 2005, p. 600).
i. Clear goals.
j. College readiness: a set of skills, and constructed behaviors, and knowledge that students should acquire before enrolling in college, that will allow them to successfully complete it.
k. Technological skills: the ability to effectively employ technological devices.
l. Self-determination: the ability of a person to manage themselves, make confident choices, and think for themselves.
m. Time management: «The activity or skill of controlling the way you spend your time in order to work as effectively as possible»[56].

2. Demographic variables
    a. Age.

[56] Cfr: https://www.ldoceonline.com/dictionary/time-management#:~:text=From%20Longman%20Business%20Dictionary%20%CB%88time,Exercises. (Retrieved October 19, 2022).

b. Academic standing.
c. Gender.

3. Inner/outer personal variable
    a. Family support, home environment and time management.
    b. Family responsibilities.
    c. Financial situation.
    d. Job employment and responsibilities.
    e. Life issues related to health and disability.
    f. Grades and GPA.
    g. Perceived ease-of-use on technology.
    h. Technology limitations.

Additional factors may be encountered at an organizational level. Educational organizations have a critical role in dropout quotas, especially when they fail to provide efficient and capillary services. Organization should support and train teachers in order to provide a better education, and tutoring plays a significant role.

1. Institutional support.
    a. Student support services and online course orientation.
    b. Tutoring services.
    c. Outreach and resources-sharing.
    d. Deficient understanding of online students' needs and circumstances.

2. Curriculum or program level of difficulty.
    a. Too-easy or too-difficult curriculum.
    b. Nature of the course such as elective, distributional, or major requirement courses.

A third aspect is represented by the factors that affect online students' retention at the instructor level. Professors, faculty members, etc. should create an environment where students and instructors can collaborate, exchange information, and support each other. Besides, since they usually are in charge of course designs, they should be able to create a high engagement and transmit the benefits of the course.

1. Facilitation of student engagement and promotion of a sense of belonging.
    a. Absent verbal and visual cues.
    b. Isolated and unsupported students.
    c. Expectation of equivalent engagement as in traditional environment.
    d. Low social presence leading to a poor sense of belonging and passive engagement.
    e. Insufficient promotion of student interaction.

2. Facilitation of learning.
    a. Inadequate instructor presence for fostering knowledge acquisition and mediating meaningful engagement including instructor's time investment during course facilitation.
    b. Lack of instructor guidance for promoting topic understanding.
    c. Low quality of interaction between instructor and students and inadequate feedback to learning.
    d. Ineffective communication from instructor.
    e. Assignment types along with lack of personal interaction with instructor.

3. Course design.
    1. Lack of course organization, illogical course structures and difficult-to-locate materials.
    2. Uninteresting and/or irrelevant course elements.
    3. Vague expectations.

As discussed, all such variables significantly contribute to enhancing or decreasing dropout rates and they should always be considered at the moment of creating a program.

For what concerns the behavioral aspect Muljana & Luo, (2019, pp. 31-32) recommend organizations to implement a "catch them early" approach, based on tracking students' previous performances (Raju & Schumacker, 2015, p. 564) and intervene with services that help struggling learners. For instance, providing courses regarding time management, technological skills, learning strategies, and self-discipline would be convenient.

Furthermore, online instructional systems should consider, more than their face-to-face counterparts, the importance of continuous tutoring and supporting systems. Since, in online

courses, social interaction may be limited, tutoring and counseling services should be massively implemented and easy to reach. Therefore, the idea of constant collaboration and exchange is supposed to be in any educational organization's set of values.

A further relevant role is carried out by instructional figures such as professors, or colleges and universities faculty members. Not only instructors should receive a training on devices used for classes, but they should also be trained to recognize students' needs, boost the promotion of dynamic class dialogue, as well as implement meaningful courses.

To sum up, online education must face a new set of challenges, usually different from face-to-face's. The lack of physical facilities and interaction shall be replaced with functioning services, especially when it comes to orienting and tutoring students; interaction among instructors and learners in online classes also has a massive impact, perhaps more relevant than in face-to-face education. Yet, more information and order on online retention would help us to establish a greater degree of accuracy on this matter, since it appears to me no relevant nor vast investigation has been conducted on online dropout, and the majority of studies seem not have found a relationship among the aforementioned aspects. Furthermore, scholars can't seem to agree on establishing a clear lexicon on this matter.

If this chapter regarded the drawbacks and some possible solutions to online education's problems, the next chapter's main focus will be on hybrid education, as a product of online and face-to-face mediums.

4.0 Hybrid Learning

The aim of the present chapter is not only to define and analyze hybrid learning or blended learning's[57] features and how they are implemented in schools and universities, but also to examine students and teachers' perception toward the medium. The past two years have increasingly seen a rapid adoption of the hybrid and online medium.

If online learning's definition is rather simple to deduct, the interpretation of hybrid learning causes several problems probably due to being quite generic and including a various range of applications.

According to Cavanaugh et al. (2012) in O'Byrne & Pytash, (2015, p.147) «Hybrid learning is a pedagogical approach that combines face-to-face (F2F) instruction with computer-mediated instruction»; although I do not consider hybrid learning a pedagogical approach, since I intend it as a medium, this may be a satisfactory definition.

Another definition might be found in Graham (2006, p. 5): «Blended learning systems combine face-to-face instruction with computer-mediated instruction». In Graham it is highlighted only the presence of the two ingredients, while according to Garrison & Kanuka (2004, p. 96) hybrid education is «The thoughtful integration of classroom face-to-face learning experiences with online learning experiences». This last definition suggests that the blend between the face-to-face and online medium should be balanced wisely to facilitate students' learning.

Other scholars tend to be more precise. For instance, Allen & Seaman (2010, p. 5) point out that hybrid courses «[Blend] online and face-to-face delivery. A substantial proportion of the content is delivered online, typically uses online discussions, and typically has a reduced number of face-to-face meetings». The authors confined the use of face-to-face instruction to a certain number of times.

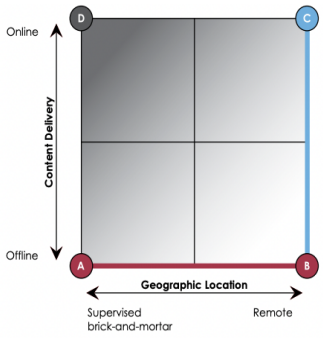
Since several taxonomies for hybrid learning have been developed, I am prone to define it as an "umbrella term". This means that my idea of hybrid education includes all the aforementioned definitions. Yet, the description that seems to best summarize hybrid learning is Staker's one (2011, p. 5): «... Is any time a student learns at least in part at a supervised brick-and-mortar location away from home[58] and at least in part through online delivery with some

[57] (Olapiriyakul & Scher, 2006, p. 288) enunciate that «These two terms (hybrid learning and blended learning) are used alternatively but refer to the same concept».

[58] Staker specified: «A school building is the most traditional location. Other facilities, such as a storefront converted into a computer lab, could also qualify as a brick-and-mortar setting for learning. Furthermore, an adult must be physically present to supervise the learning. A barista at Starbucks does not count». (2011, p. 5)

element of student control over time, place, path, and/or pace». In addition, Staker traced hybrid learning spaces of actions, by showing a two-axis matrix. On the X-axis, the location is set, ranging from 100% in a brick-and-mortar educational building to 100% remote, while the Y-axis shows the medium, which can be face-to-face or online.

Figure 5. Hybrid Education's space of action.



Point	Blended?	Example of program
A	**No**	Traditional brick-and-mortar school
B	**No**	Home school without online delivery
C	**Maybe**	Purely virtual school (also called cyber school and e-school). It only figures into blended learning if a student uses it to self-blend with a traditional campus.
D	**Yes**	Theoretical pure-play for blended learning (100% online and 100% supervised brick-and-mortar)
	Yes	Student learns through a mix of online/offline and supervised brick-and-mortar/remote

(Staker, 2011, p. 6)

In the figure, it is noticeable that the space of action is rather wide; therefore, it is often difficult to figure out how a hybrid course could be implemented. Hence, Staker also conceived six blended models that might be employed.

- Face-to-Face Driver: the whole curriculum is delivered face-to-face, but online delivery might be used to help students and teachers facing difficult or opaque subjects.
- Rotation: students alternate on a set timetable between independent online activities and a traditional classroom setting with a teacher. Because it incorporates a division between the two and, in some situations, between remote and onsite learning, it is the closest model to the traditional face-to-face classroom and online learning. The online work is typically supervised by an instructor who is physically present in class.
- Flex: the online platform delivers all the curricula, but instructors are present for on-site support and/or tutoring.

- Online Lab: the teaching contents are dealt by an online platform but students attend in a brick-and-mortar environment. Paraprofessionals usually supervise but they do offer little to no expertise in the subject matter.
- Self-Blend: students can choose additional online courses to add to their students' study plans, which are generally delivered face-to-face.
- Online driver: this model includes an online platform and a teacher that provides all the curricula, but sometimes face-to-face checkups might be required.

Surely, these models cover many cases, but other scholars proposed their points of view. Namely, Watson (2008, p. 6) comprehended hybrid learning in these four categories:

- Mostly or fully online curriculum with select days required in classroom or computer lab.
- Mostly or fully online curriculum in a computer lab or classroom where students meet every day.
- Classroom instruction with significant, required online components that extend learning beyond the classroom and beyond the school day.
- Classroom instruction integrating online resources but limited or no requirements for students to be online.

Unfortunately, Staker and Watson's cases do not cover entirely hybrid education's domains, consequently, I intend to propose a model that include part or all said versions and add certain aspects that might have been neglected. As previously stated, hybrid education is the product of some face-to-face and online features, hereby briefly summarized:

Face-to-face features	Online Features
● Known, specified physically shared environment. ● Synchronous classes. ● Exams and tests are always synchronous and conducted in a	● Known and specified virtual environment. Students and teachers are usually far from each other. ● Classes are not necessarily synchronous. ● Exams and tests can be conducted in a virtual environment, an instructor

physical environment. An instructor overseeing is required. ● Didactic materials are physical, i.e., books, props, etc. ● Tutoring hours are synchronous and in presence.	oversee is required, alongside other control software. ● Didactic materials may be physical, but usually they are not ● Tutoring hours are synchronous but online.

Thus, hybrid education's features are the result from face-to-face and online features', although doses may vary drastically. Yet at least one feature from both categories should be implemented, in fact, a hybrid learning course can be essentially different from another yet being included in the same category.

Here are the six questions organizations should ask themselves when a new hybrid course is to be implemented, and the possible answers:

Question n.1

Where is/are the instructor/s located?

Answer

Online / in presence / both.

Instructors may be in class or in a shared agreed physical location (a garden, a park, a gym), or in a virtual environment via teleconferencing apps, such as Zoom, Google Meet, etc. Some deliveries of hybrid learning involve the simultaneous presence of instructors both online and offline. Teachers may be in class, but at the same time, online students can see what is happening in the classroom through webcams.

Question n.2

What kind of students' attendance is required?

Answer

Online / in presence / some in presence, others online / asynchronous.

When it comes to student attendance, courses can be designed in several ways. For instance, students might be required to show up in class every time, or the attendance could be only online. Sometimes, courses indicate a mix of the two: students can choose

to attend online or in class (based on their own preference, location, health, etc.), or a rotational system could be proposed, or certain students could attend asynchronically, via recorded videos. Consequently, didactic activities should be planned accordingly, considering the kind of attendance.

Question n.3

What kind of didactic materials are implemented?

Answer

Physical materials (physical books, props, etc.) / online (videos, webinars, recordings, etc.) / both.

For what concerns materials, teachers are usually required to choose whether to use physical resources or online ones – please note that physical materials can also be used in online classes and vice versa. For example, a book, therefore a physical tool, can be employed and read by both teacher and students via the web, but also YouTube videos can be watched in class.

Question n.4

What kind of activities are implemented?

Answer

Online / in presence / both.

Although activities might be various, they can require working in groups (role plays) or solo efforts or include the use of interactive games or the physical presence of props, courses should plan activities according to the employed medium. Online classes cannot carry out activities that involve a physical feature, and vice versa, while the hybrid medium may include some of them, when possible.

Question n.5

How are exams or tests provided?

Answer

Online / in presence / in presence but via computers.

Some institutions may demand all students to take exams physically, or via teleconferencing apps, although an additional anti-copying software is often compelled. Some institutions may also choose to implement tests in presence, that could be provided in a computer lab or in the old-fashioned way: face-to-face.

Question n.6

How are tutoring hours delivered?

Answer

Online / in presence / or both.

Although the concept of tutoring hours usually belongs to high education (universities or colleges), also other entities implemented certain hours aimed at clarifying concepts that were proposed during lessons or in the extra materials. Tutoring hours can be delivered according to students and instructors' needs.

After having analyzed the opportunities provided by hybrid education, it is undisputable that learning applications are severely different from one another, and yet they can be included in the same definition. A presential course that implemented online activities, for example online exercises or virtual reality sessions in a lab, and a course that allows students to attend online and in presence synchronically, are both considered hybrid, despite their cores are profoundly different. The definition's innate vagueness has a predictable consequence: the difficulty of gathering data. For instance, if researchers are interested in finding out the effectiveness of hybrid education, they will always face the problem of indefiniteness of the expression. Another concerning aspect is the lack of agreement among scholars regarding hybrid education nomenclature, which makes it difficult to research. Consequently, it is hard to delineate the potential advantages and limits of hybrid learning. In order to narrow the hybrid education matter and enhance comprehension, this investigation will only focus on one specific application of the hybrid medium, which will be next chapter's core.

4.1 Here or There Instruction

In the previous sections, the importance of hybrid learning and the broadness of its connotation, was examined. Hybrid education can involve distinct deliveries: for

instance, face-to-face classes that employ computer machines for additional activities, as well as rotational online/face-to-face classes are included. For this reason, I chose to converge on a certain application of the hybrid medium. Such application belongs to the field of synchronous hybrid learning and it involves real-time classes.

Having already discussed the broad definition of hybrid learning, it is now important to focus on the expression 'synchronous', which implies delivering simultaneous classes or lectures. Although the term synchronous results transparent, the whole term "synchronous hybrid learning" appears to be vague, still. Thus, introducing an additional sub-category may add information: Here or There instruction (HOT instruction). According to Zydney et al. (2019, p. 123) HOT instruction is «A blended synchronous approach that enables students to be from on-campus ("here") or a remote location ("there") to participate together in class activities in real time». This delivery differs from the remote classroom, in which students are split into two groups: one can attend in class, while the other is gathered in a designated place (i.e., group one is located in the university building and the second in a university branch).

Since HOT instruction combines both online and face-to-face mediums, it is imperative to highlight the classroom's features. Classrooms are supposed to be equipped with furniture and tools that allow both students and teachers to work and interact with each other, without being uncomfortable. For what regards traditional classes, desks and chairs are usually the most common items, but other pieces of furniture or tools may be helpful to improve the learning experience: boards and maps, for instance, may come in handy. In recent years, additional tools were introduced: projectors are progressively entering the learning environment, as well as interactive boards, or simply computers or laptops. However, a HOT classroom necessitates a well-designed architecture and a specific equipment in order to function properly. Below is a sample image to better understand how HOT classrooms are structured.

Figure 6. A sample HOT classroom

Cfr:https://news.media-and-learning.eu/files/2019/10/Hybrid-1_good-1024x683.jpg

(Retrieved November 18, 2022)

As you can see from the image above, the two mediums (face-to-face and online) are joined in the same teaching moment. The instructor is physically in class, in front of the students, and behind students, screens, webcams, and speakers are installed. These devices have multiple uses: replicate a face-to-face interaction, so students and teachers can interact with people online and looking at someone even though through a screen; webcams allow people online to see professors and students, and speakers let online students vocally interact with people in the class. The professor is aided by slides, or notes. There may be an electronic board or a projector screen with notes, or conceptual maps, etc.

Even though a basic structure of a HOT class was introduced, other scholars have theorized other configurations that have been tested over the years.

For instance, Zidney et al. (2019) proposed three-class contexts: the virtual flipped or hybrid classroom, the student-facilitated classroom, and the hybrid model[59]. I will briefly analyze them.

Before examining what a virtual flipped classroom configuration is, it is essential to point out the setting a flipped classroom. Nouri (2016) describes that the flipped classroom's concept

[59] Although Zidney et al. (2019) refer to it as Hybrid Approach, I replace the word 'Approach' with the word model in order not to confuse the reader.

is «Based on the idea that traditional teaching is inverted in the sense that what is normally done in class is flipped or switched with that which is normally done by the students out of class». The process of acquiring information is no longer held in class but at home, whereas analysis and discussions occur during the class time. The virtual flipped classroom shares the same philosophy but it introduces innovative features, for instance, students and teachers sit at the same table, and people in class are able to speak with their online peers (whose faces are projected on a screen) via microphones and webcams, that were previously installed and set. Since a flipped classroom involves a massive amount of floor time by students, the instructors assume the role of presenters and facilitators, and provide technological support (Zydney et al. 2019, p. 125).

The second class configuration, the student facilitated classroom, is more demanding not only on the technological side (a sample class is composed of: a widescreen camera, four spider speakerphones, two projectors, two laptops, and headphones for each person in class), but also on the personnel side, as at least two instructors are necessary (a technology facilitator[60] and a discussion facilitator[61]). 'Here' students are gathered in pods, each of which is composed of a table for up to six students, a computer or a screen, and a microphone. Classes are constituted by a breakout session part in which students are divided into groups and collaborate with each other at designated activities; the groups are homogenous, 'here' and 'there' students are usually in different groups. At the end of the breakout session, classmates focus on debriefing and sharing each other's results and points of view.

The third class setting is called hybrid model and it appears to incorporate some aspects of the other two. As I mentioned earlier, the student facilitated classroom is characterized by many breakout sessions and varied equipment, and so is the hybrid model, even though the single groups are composed of heterogeneous students (both 'here' and 'there'), whereas virtual flipped classrooms and the hybrid model share the same trait of instructors as facilitators.

Having defined what HOT education is, and some of its class settings that might be implemented, the next chapter will focus on the pros and cons of HOT delivery.

4.2. Benefits and Limitations of HOT delivery

[60] «[They] set up, record and share recording of online breakout sessions, troubleshoot technology problems and monitor texts chat». (Zidney et al., 2019, p. 126).
[61]«[They] keep the content of discussion focused and monitor time». (Zidney et al., 2019, p. 126).

In the previous chapter a theoretical overview of some hybrid learning applications and class settings was offered. In addition, the emphasis was on a certain delivery called HOT instruction. HOT instruction allows students to choose their kind of attendance: either online or in class. This medium, such as the previous ones, has inborn advantages and disadvantages. This chapter's aim is to point out the benefits and limitations of the HOT medium, analyzing them from the perspective of students, professors, and institutions.

Although HOT education has been explored by several scholars (Beatty, 2007; Szeto, 2015; Bower et al., 2015), it has mostly gained fame in recent years, due to the restrictions given by the COVID-19 pandemic. The HOT delivery shares many similarities with the online one, yet it has several divergences. According to Raes et al. (2020), such as the online medium, HOT instruction might help to extend the reach of potential students, especially those who are unable to enroll in a traditional brick-and-mortar educational institution, yet without removing the face-to-face experience. In addition, thanks to HOT delivery, scholastic and university spaces and schedules may be optimized. For instance, teachers are no longer required to reiterate classes, consequently, not only classrooms and other didactic spaces could be used for other purposes, but also the fewer teaching sessions result in a reduction of workload for teachers.

For what concern students, advantages are numerous, the HOT medium allows a greater flexibility, in line with the current society. An educational path can be matched with everyday duties, temporary illnesses, family commitments, and job obligations. HOT education allows a great flexibility, which seems to be rather attractive to those who have already begun a career path. Such schedule plasticity promotes the formation of multifaceted classes, composed of individuals from different life backgrounds and ideas. The presence of multicultural and varied background diversity can enrich the learning process (Raes et al., 2020, p. 281), as stated by Liu et al. (2018, p. 9), who noted that «...Not only [HOT classes] facilitated student collaboration on research but also helped them build friendships and develop the mutual understanding of other students from different cultural and socioeconomic backgrounds». On the other hand, certain researchers focus on entirely different benefits, such as continuity: «Blended synchronous learning also provides an alternative way to ensure the continuity of instruction…» (Wang et al., 2017, p. 101).

There are certain aspects that may facilitate the transition from the traditional delivery toward a hybrid one, some of which should, nonetheless, not be underestimated, starting from class equipment: as said, classes are supposed to be furnished with a reliable internet connection, microphone(s), webcam(s), etc. Consequently, training all the personnel in the usage of technological supports may result a considerable investment for institutions.

Instructors face slightly different challenges. Since delivering the contents through the HOT medium is highly linked with the technological setup, teaching methodologies should be adapted to it, and vice versa. In addition, teachers' ability with certain technological tools will influence the lessons/courses outcome. For instance, if instructors are not accustomed with videoconferencing tools, they will not be able to accept 'there' students that are in the virtual waiting room, project slides on the computer's screen or read the chat, where users usually leave comments and questions; this may result in a loss of content quality, and a greater students' discomfort. Consequently, instructors necessitate specific training for mastering the required tools.

Regarding HOT education in general, on the one hand, students usually enjoy it as medium, since it concedes more flexibility than others, yet, on the other hand, teachers face greater tasks in order to coordinate the classes: they are the ones in charge of delivering the contents, monitoring between 'here' and 'there' students, coordinating activities, and ensuring the two groups are not feeling excluded from classes. Overseeing so many duties may lead to significant cognitive overload or hyperfocus[62]. I found an email sent by a co-instructor, quoted in Zidney et al. (2019:129), to be most striking:

> *I actually just woke up from a 2-hour nap - that's how much that session took out of me. We need to continue thinking about how to make this type of thing easier as I really do think it serves an important need for students.*

As a matter of fact, teachers who are inclined to troubleshoot and multitask skills are advantaged, if compared with those who are not prone to.

However, Zidney et al. (2019) argue there are guidelines that should be followed to facilitate instructors' duties:

1. Simplifying the Technology.

The authors suggest to pre-install computers, audio, and projectors in class, to simplify the learning and teaching process, instead of letting students bring their own device. The reason lies in the difficulty of coordinating several computers that may have complications with software or hardware.

[62] As Ashinoff & Abu-Akel (2021, p. 85) remind «'Hyperfocus' is a phenomenon that reflects one's complete absorption in a task, to a point where a person appears to completely ignore or 'tune out' everything else».

2. Distribute the Workload.

As stated in the previous lines, teachers may feel pressure caused by multiple tasks, therefore the authors recommend distributing the workload. Roles such as "chat-tracker" and "technology troubleshooter" may enhance students' participation and create a more student-center environment, as well as facilitate the roles of instructors.

3. Make HOT Participation Flexible.

Research shows that the success of HOT sessions is related to students' level of commitment, which is, in some cases, linked with flexibility. Some students, especially those who are workers, have difficulties in attending properly. Therefore, associating asynchronous activities or class recordings may help.

4. Integrate into Course Design.

The authors recommend employing the instruments provided by the HOT medium, for explicating the learning purposes and contents.

5. Plan for Support.

The technology employed in HOT classes may cause several problems and delays, thus teachers are reluctant to employ it without technical personnel in class. What the authors recommend is prior training, provided by a technical staff. They also suggest some initial flank sessions, in which to provide technical and moral support.

After having discussed limitations and challenges for institutions and teachers when it comes to HOT education, this final section will mainly focus on the students' implications. For this last issue, I will base my discussion on Philip Olt's (2018) *Virtually There: Distant Freshmen Blended in Classes through Synchronous Online Education*, an investigation that was conducted in 2017 on 21 students at the University of Wyoming, nine of whom were available for interviews. Herby are some of their experiences.

The author called the first reported issue ambiguity about group membership. He argued that during HOT classes students may feel included or excluded at times, this sensation being

experienced by both groups. Such feeling of exclusion could be a result of the instructors' educational proposals, yet it could be easily triggered by technological separation as well. One of the students that agreed to be interviewed, commented that online students struggled to interact with the teachers because they sometimes neglected 'there' students. Decisions such as muting the microphones or not noticing when someone has a question can greatly affect students' participation.

The second problem is called ambiguity about functionality. As argued in previous chapters, technology is pivotal in HOT instruction, especially when it comes to reliability. A demonstrative example could be found in one of the student's interviews:

> *My wi-fi exited me out of class probably five times, and then, when I called back in, of course, it dings. Sometimes the teacher will kinda make a big deal about it, and in that case, it was made a big deal. That was embarrassing and then just kinda awkward. (p. 389)*

Thus, issues such as this one may be a cause of interruption, embarrassment, and a loss of focus for everyone that experiences it. Other problems may come from videoconferencing apps and peripherals: software, monitors, cameras, and microphones could fail to work properly. Explanations, concepts, and assignments could be misunderstood, therefore further work should be done for both teachers and students.

A further issue regards the ambiguity about place. In other words, as part of the students are not physically in class but their faces are transmitted on a screen (if they turn on their webcams), their social and physical cues are not transparent. If an instructor cannot see faces, poses, or gestures, they do not know whether lessons' topics are received or not.

To sum up, the literature identifies both conveniences and issues regarding institutions, instructors, and learners when it comes to implementing, and employing the HOT medium. Organizations, teachers, and students must recognize limits and advantages to be fully aware about courses' perception, adopt countermeasures, or totally ignore the medium.

In the next sections, I will present the methodological framework of an exploratory investigation, conducted among certain northern Italy universities. Therefore, I will present the results of two questionnaires (for both professors and students); these results will allow readers to have a better understanding of the HOT phenomenon, although limited due to the limited sample, in Italian high education institutions.

5.0 Methodological framework

In the previous chapters, hybrid education's components were extensively analyzed. In addition, advantages and disadvantages of the face-to-face and online mediums were briefly introduced, while in chapter four various hybrid's medium applications were presented. Among them, it was chosen to converge on a single one, called HOT instruction.

This section explores university students and teacher's experiences and perspectives of employing the HOT medium at the University of Padua, Verona, and Venice.

Late 2019 and the beginning of 2020 coincided with a sudden rise of infections from the virus SARS-CoV-2. On March 4, 2020, the Italian Parliament released a legislative decree[63] that suspended all educational activities in class (except for those related to medicine and the military), and consequently demanded for immediate activation of online delivery for all educational institutions, from preschools to universities. After the first months, on August 6, 2020, the Italian Ministry of Education published a document that illustrated the guidelines for the successive phases: phase two and phase three[64]. Phase three is characterized by:

> Piano di offerta didattica blended, ovvero in grado di essere erogata sia in presenza sia in telepresenza, con modalità sincrona e/o asincrona, garantendo le stesse possibilità in termini di accessibilità e di qualità della didattica agli studenti in presenza e a quelli a distanza (ad esempio gli studenti fuori sede, gli studenti limitati negli spostamenti da misure restrittive), nonché agli studenti con disabilità o DSA e, comunque, coerentemente con quanto verrà imposto dalle autorità competenti nei diversi territori[65].

As a matter of fact, from the first semester of the 2020/2021 academic year, the universities of Padua, Verona, Venice, and many others have extensively installed webcams, screens, and microphones in classes and trained personnel in order to allow operating hybrid synchronous and asynchronous classes.

[63]Cfr: https://www.gazzettaufficiale.it/eli/id/2020/03/04/20A01475/sg (Retrieved December 15, 2022)
[64]The Italian government has identified three stages for what concerns the COVID-19 crisis: phase 1, or the lockdown and therefore the shutting of the majority of activities and relocation in a virtual environment. Phase two started on May 4, 2020 and ended during the last days of August 2020. Phase three started on September 2020 and ended in January 2021.
[65]Translation: «[A] plan for blended educational deliveries, thus, capable of being delivered both in-presence and telepresence, in synchronous and/or asynchronous modes, guaranteeing the same possibilities in terms of accessibility and quality of teaching to in-presence students and distance students (e.g. off-site students, students limited in their movements by restrictive measures), as well as students with disabilities or learning disorders and, in any case, consistent with what will be imposed by the competent authorities in the different territories».

Since this investigation's field belongs to language learning, this work will focus on students and instructors' perceptions of the 2020/2021 academic year English language courses.

Initially, I architected a Computer Assisted Web Interview (CAWI) using Google Forms[66]. CAWI «... Is part of a methodology based on a questionnaire provided to the respondent with a link, in a panel, or a website»[67]. I chose CAWI for several reasons: it has limited costs, it allows researchers to spread the questionnaires or the surveys quite rapidly, furthermore, since there are no interactions with the interviewers, respondents would not perceive any influence. Nonetheless, the method has certain drawbacks: generally, potential interviewees ignore questionnaires and surveys, and usually, this method of interviewing cuts down on those who have informatics skills and an internet connection. As I could not conduct any kind of interview physically, and I wanted to reach a wider potential audience, I turned my attention to CAWI.

I designed the students' questionnaire by focusing on six main areas: background information, health, interactions, personal and general judgments on HOT Instruction. The questionnaire is characterized by different typologies of responses: linear scale[68], multiple choice, short answer, long paragraph.

I chose to structure the questionnaire in Italian because most students are Italian native speakers and although they are supposed to be proficient in English, Italian seemed a better choice, in order not to discourage them and minimize the dispersion rate. The questionnaire was opened on September 15, and closed on October 10, 2022. Below is the translation of the 28 questions I have designed for the questionnaire.

Background information

1. Age (Short answer).
2. What university do you attend? (Multiple choice: University of Padua, University of Venice, University of Verona, other).
3. In which academic year did you take a HOT English course? (Multiple choice: 1st-year bachelor, 2nd-year bachelor, 3rd-year bachelor, 1st-year master, 2nd-year master).
4. During HOT English classes, which was your attendance medium? (Multiple choice: 50% online/in class, >75% in class, >75% online, 100% online, 100% in class).

[66] «Google Forms is a survey administration software included as part of the free, web-based Google Docs Editors suite offered by Google». Cfr: https://en.wikipedia.org/wiki/Google_Forms (Retrieved December 12, 2022).
[67] Cfr: https://www.idsurvey.com/en/methods-web-survey-cawi/ (Retrieved December 13, 2022).
[68] A response in which surveyors have to provide numeric feedback to a given statement.

Health

5. «During HOT English courses, I struggled more» (Linear scale: from 1 to 10).
6. «During HOT English courses, I had more free time» (Linear scale: from 1 to 10).

Interactions

7. «When I was in class, I had more difficulty interacting with the teacher(s) compared to when I was online» (Linear scale: from 1 to 10).
8. «When I was online, I had more difficulty interacting with the teacher(s) compared to when I was class» (Linear scale: from 1 to 10).
9. «When I was in class, I struggled to interact with my peers in class» (Linear scale: from 1 to 10).
10. «When I was online, I struggled to interact with my peers online» (Linear scale: from 1 to 10).
11. «When I was online, I struggled to interact with my peers in class» (Linear scale: from 1 to 10).
12. «When I was in class, I struggled to interact with my peers online» (Linear scale: from 1 to 10).
13. «During HOT sessions, I interacted more frequently with my peers» (Linear scale: from 1 to 10).
14. «The professors had more consideration for online students rather than students in class» (Linear scale: from 1 to 10).
15. «The professors had more consideration for students in class rather than online students» (Linear scale: from 1 to 10).

General impressions on HOT instruction

16. Compared with face-to-face English classes, do you think HOT instruction to be… (Multiple choice: more effective, less effective, equally effective, I don't know).
17. «During HOT courses, I had more difficulty in learning» (Linear scale: from 1 to 10).
18. «During HOT courses, my grades improved» (Linear scale: from 1 to 10).
19. «During HOT courses, English language tests were easier» (Linear scale: from 1 to 10).

20. Do you think asynchronous teaching tools (i.e., recordings, webinars, etc.) should be included in HOT courses? (Multiple choice: yes, yes, with some limitations, no, I don't know).
21. Do you think recordings can replace HOT and face-to-face classes? (Multiple choice: yes, no, I don't know).
22. Would you consider attending English HOT courses in the future? (Multiple choice: yes, no, I don't know).

Personal opinions on HOT experience

23. Do you think online teaching materials to be… (Multiple choice: easier, more complicated, equally complicated, I don't know).
24. Do you think paper teaching materials to be… (Multiple choice: easier, more complicated, equally complicated, I don't know).
25. How do you think the exercises/tasks were? (Multiple choice: easier, more complicated, equally complicated, I don't know).
26. In terms of motivation, how did you feel? (Multiple choice: more motivated, equally motivated, less motivated, I don't know).
27. What is your favorite medium? (Multiple choice: in class, online, I don't know)
28. Final considerations: feel free to describe your HOT experience, expressing merits and demerits. (Short paragraph).

I began to send the questionnaire on WhatsApp and Facebook student groups of the University of Padua, Venice, Verona, and Cattolica University. Although the potential audience was limited to those who experienced HOT English language classes, 57 people were willing to participate. Such a limited number cannot constitute a representative sample, it is thus necessary to point out once again the exploratory nature of the present investigation.

I arranged an instructors' questionnaire as well, to mirror the students' one. The two questionnaires share some similarities, such as the thematic areas; nonetheless, in this case, I intended to employ the English language, for the exact reason I chose to structure students' questionnaire in Italian: I believed that the majority of the respondents would be English native speakers. Another major difference lies in the formulation of some of the questions, structured in order to comply with the class role teachers have. Namely, I would have never asked if their proficiency in English improved, but I could ask whether they perceived students' proficiency

improved or not. Besides, instead of the expression “HOT education”, I chose to employ the term “hybrid learning”, or “hybrid education”, because I thought it would have been more understandable for them, although it might not be the appropriate term. The questionnaire was opened on November 2, 2022, and closed on November 14, 2022. During this period, I reached professors from several universities via e-mail, 18 of whom kindly filled out the questionnaire. Below are the questions I submitted.

Background information

1. Age (Short answer)
2. Where are you currently teaching English? (Multiple choice: University of Padua, University of Venice, University of Verona, others).
3. How long have you been teaching English? (Multiple choice: Less than a year, 1-5 years, 6-10 years, 10+ years).

Health

4. «Personally, I struggle more with hybrid classes» (Linear scale: from 1 to 10).
5. «I think planning an English course in hybrid mode is more demanding» (Linear scale: from 1 to 10).

Interactions

6. «Interacting with students in person was easier compared with those who were online» (Linear scale: from 1 to 10).
7. «Interacting with online students was easier compared with those who were in presence» (Linear scale: from 1 to 10).
8. «Students in class struggled to interact with online peers» (Linear scale: from 1 to 10).
9. «Online students struggled to interact with peers in class» (Linear scale: from 1 to 10).
10. «Students in class struggled to interact with peers in class» (Linear scale: from 1 to 10).
11. «Online students struggled to interact with peers online» (Linear scale: from 1 to 10).
12. «During hybrid mode, interaction among students was at its highest» (Linear scale: from 1 to 10).

13. «I interacted more with online students than with presential ones» (Linear scale: from 1 to 10).
14. «I interacted more with face-to-face students than with online ones» (Linear scale: from 1 to 10).

Personal and general judgments on HOT experience

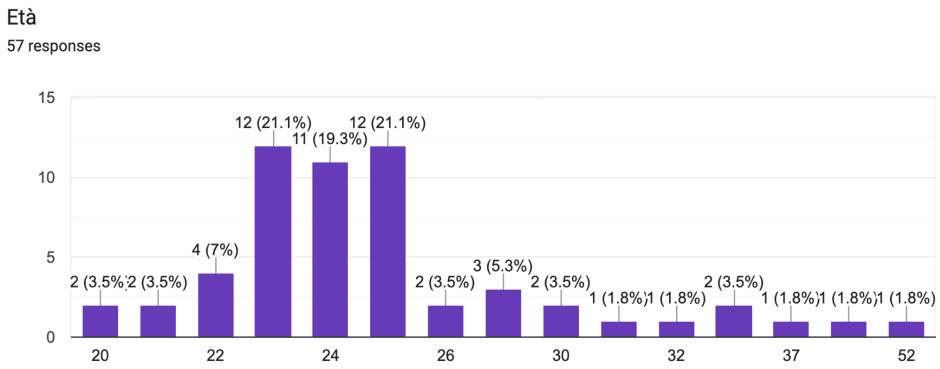
15. «I believe hybrid mode to be…» (Multiple choice: More effective, less effective, equally effective, I don't know).
16. Compared with traditional teaching, hybrid education enhanced: spoken skills. (Linear scale: from 1 to 10).
17. Compared with traditional teaching, hybrid education enhanced: writing skills. (Linear scale: from 1 to 10).
18. Compared with traditional teaching, hybrid education enhanced: listening comprehension. (Linear scale: from 1 to 10).
19. Compared with traditional teaching, hybrid education enhanced: reading skills. (Linear scale: from 1 to 10).
20. «English students' outputs increased». (Linear scale: from 1 to 10).
21. Do you believe hybrid teaching to be an effective medium in English classes? (Multiple choice: Yes, no, I don't know)
22. Do you think hybrid mode can replace the F2F medium? (Multiple choice: Yes, no, I don't know).
23. Do you think hybrid mode can replace the online medium? (Multiple choice: Yes, no, I don't know).
24. Have you perceived students' motivation to be… (Higher, lower, Unaltered, I don't know).
25. «English tests were simpler». (Linear scale: from 1 to 10).
26. Do you believe asynchronous tools (i.e., webinars, video recordings) should be included in hybrid classes? (Multiple choice: Yes, no, yes to a limited degree, I don't know).
27. Did you perceive the didactic materials to be… (Multiple choice: Less challenging, more challenging, equally challenging, I don't know).
28. Did you perceive the homework you gave to be… (Multiple choice: Less challenging, more challenging, equally challenging, I don't know).

29. Do you think recordings could replace face-to-face and online classes? (Multiple choice: Yes, no, I don't know).
30. Would you consider offering hybrid English courses in the future? (Multiple choice: Yes, no, I don't know).
31. Final considerations: feel free to describe your experience with hybrid teaching, highlighting pros and cons. (Short paragraph).

5.1 Students' aggregated data

In this section, not only aggregated data of the most interesting responses will be graphically presented, but also, personal comments of the data will be provided, aiming at contextualizing the HOT instruction phenomenon in certain universities in Northern Italy.

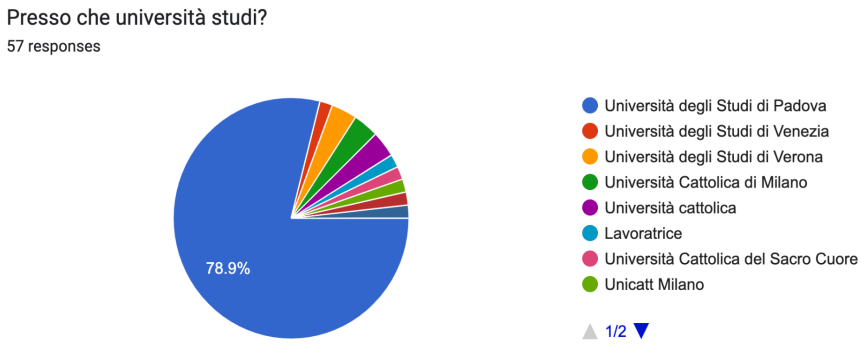
Chart 1. Age



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

Although the range appears to be rather large (the youngest respondents are 20 years old and the oldest 52), the majority (61%) were in the range 23-25 years old.

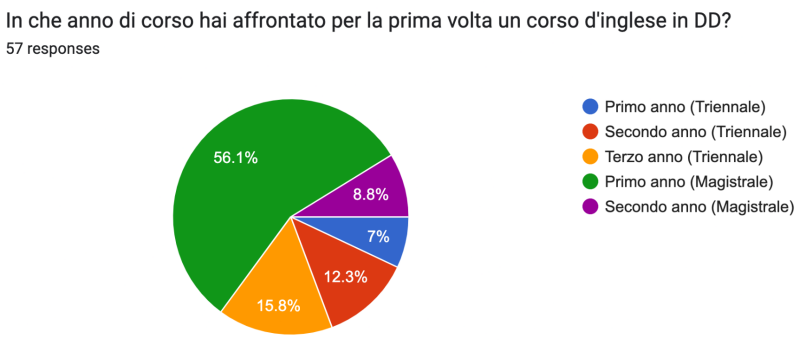
Chart 2. What university do you attend?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

Most responses were from the University of Padua (78.9%). The reason may be my presence in several University of Padua's WhatsApp students' groups (virtual places where suggestions, and courses' communications are shared), through which I was able to reach a high number of respondents. While, for what concerns the universities of Venice, Verona, and Cattolica, I was only able to reach Facebook students groups, that appeared to be less frequented. One respondent answered "lavoratrice", which means, generically, a worker.

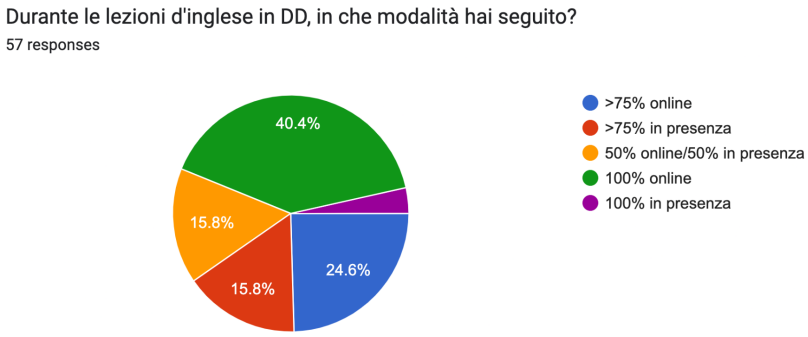
Chart 3. In which academic year did you take a HOT English course?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2022).

More than half of the respondents (56.1%) answered "1st year (master)". The other respondents were approximately spread equally among "third year (bachelor)" (15.8%), "second year (bachelor)" (12.3%), and "second year (master)" (8.8%).

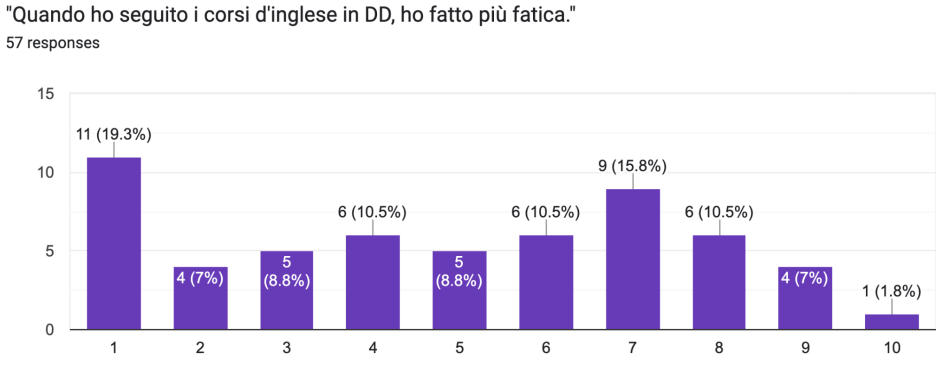
Chart 4. During HOT English classes, which was your attendance medium?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

As seen from the chart, a significant portion of respondents answered “100% online” (40.4%) and the second most chosen way of attendance was “>75% online” (24.6%). Therefore, almost three quarters of the respondents attended mostly online.

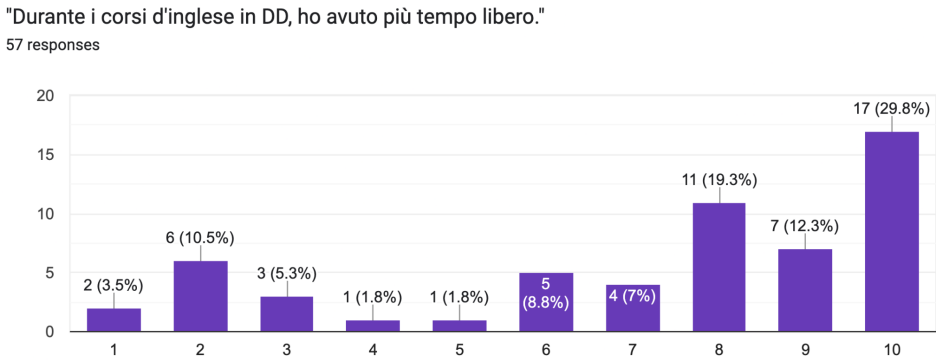
Chart 5. «During HOT English courses, I struggled more».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

In this chart, there is a definite trend: more than half of the participants (54.4%) voted in the range one to five. Generally, the chart gives the impression that participants’ perceived struggle was lower compared with previous years.

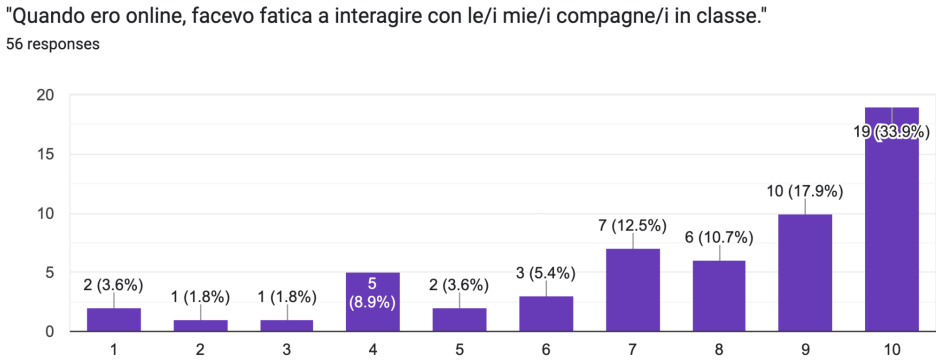
Chart 6. «During HOT English courses, I had more free time».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

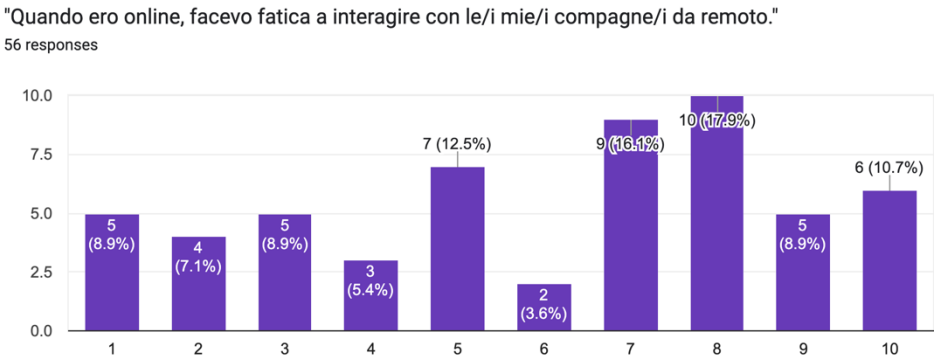
More than 75% of people affirmed that they had more free time compared with previous years. The reasons of this result could be many, but the primary may be that commuting was not a variable anymore.

Chart 7. «When I was online, I struggled to interact with my peers in class».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

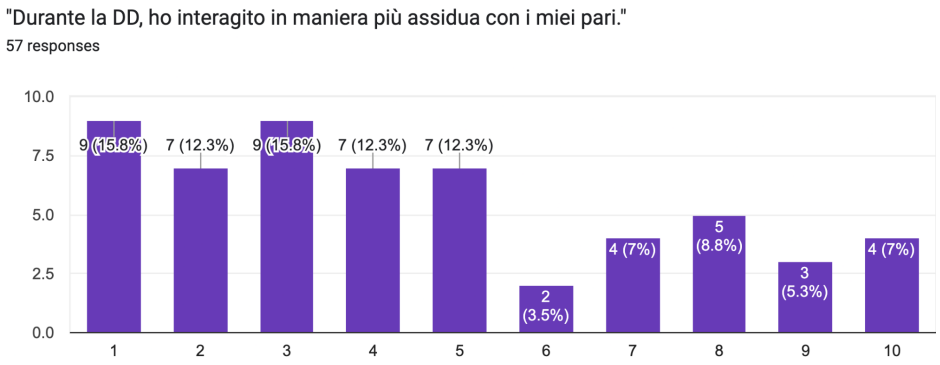
Chart 8. «When I was online, I struggled to interact with my peers online».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

These findings may provide some evidence regarding online students struggling at interacting with their counterparts in class. The reasons are likely to be found in microphone's quality or simply in the lack of microphones, as well as weak internet connections on speakers' ends. Interestingly, online students did not feel the same issue when they were interacting with their peers online. As a matter of fact, 57% of them responded within the range six to ten.

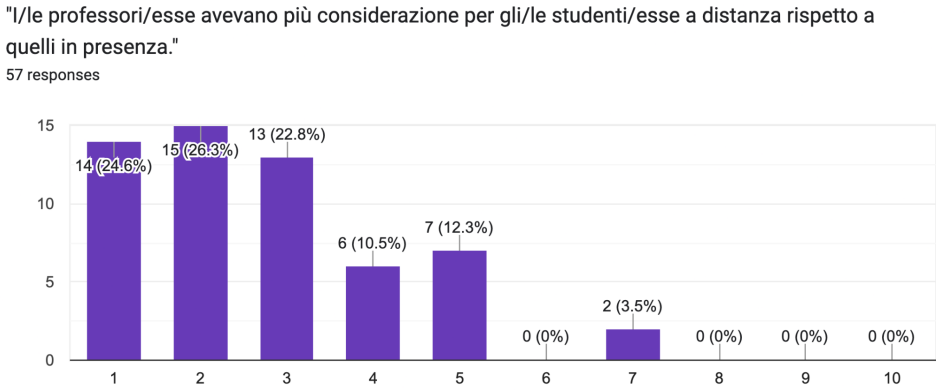
Chart 9. «During HOT sessions, I interacted more frequently with my peers».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

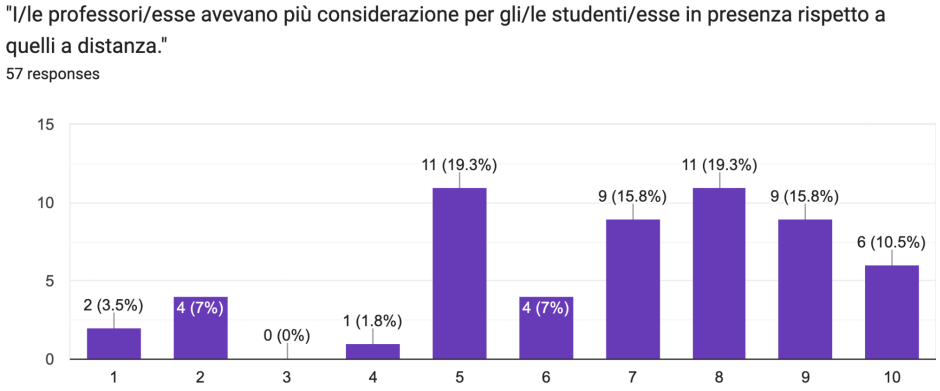
The results obtained from the chart illustrate a quite strong opinion among respondents: 68.5% of them replied in the range one to five, indicating that, in 2020 and 2021 HOT students felt they did not interact as much as previous years.

Chart 10. «The professors had more consideration for online students than students in class».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

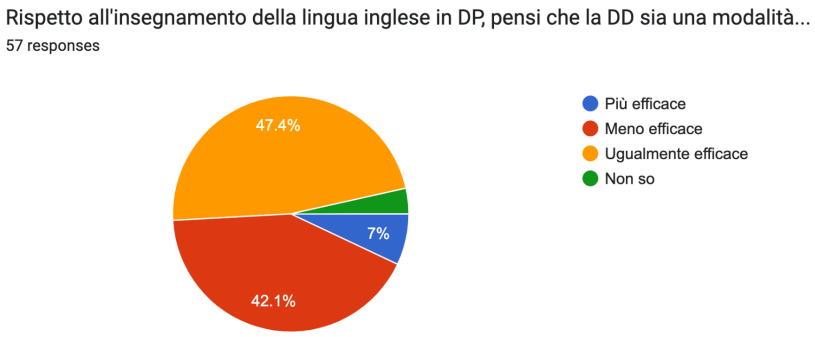
Chart 11. «The professors had more consideration for students in class than the distance students».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

These tables are quite revealing. Respondents felt professors had more consideration and interest towards students in class, rather than those online.

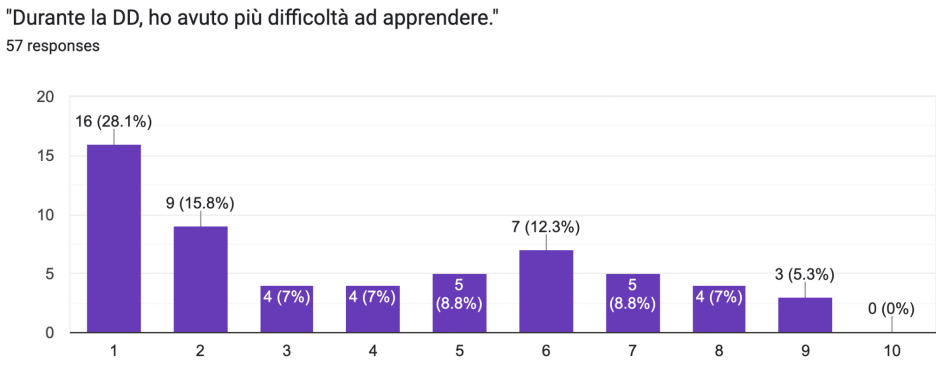
Chart 12. Compared with face-to-face English classes, do you think HOT Instruction to be…



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

What stands out in the table is a remarkable outcome: 47.4% of students regarded HOT Instruction as effective as the previous medium. Nonetheless, a significant chunk of students (42.1%) considered HOT instruction to be a less effective medium, though only 7% thought it to be more effective way of delivering.

Chart 13. «During HOT classes, I had more difficulty in learning».

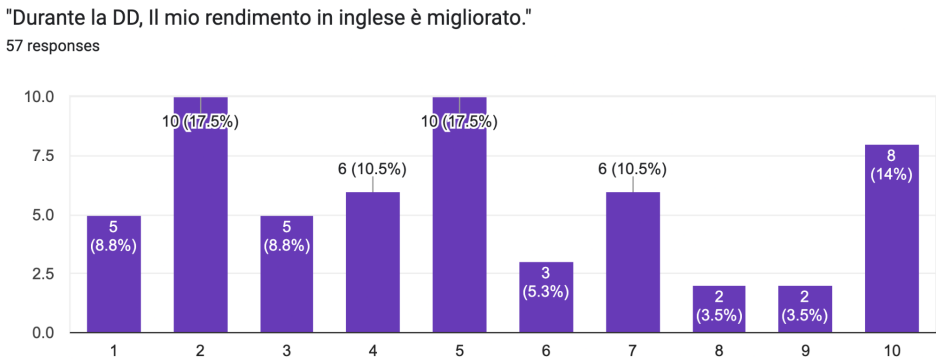


(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

This section of the questionnaire required respondents to give information regarding learning problems during HOT English courses. Of the 57 participants, over half responded

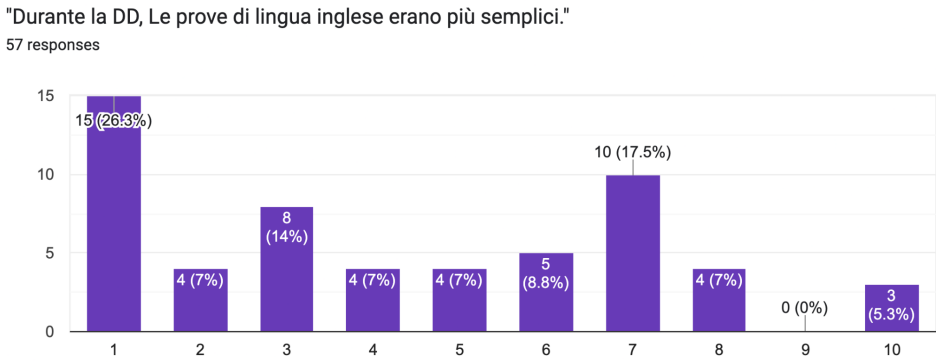
within the range one to five. Surprisingly, 16 students stated they did not experience learning difficulties at all, compared with previous years.

Chart 14. «During HOT classes, my grades improved».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

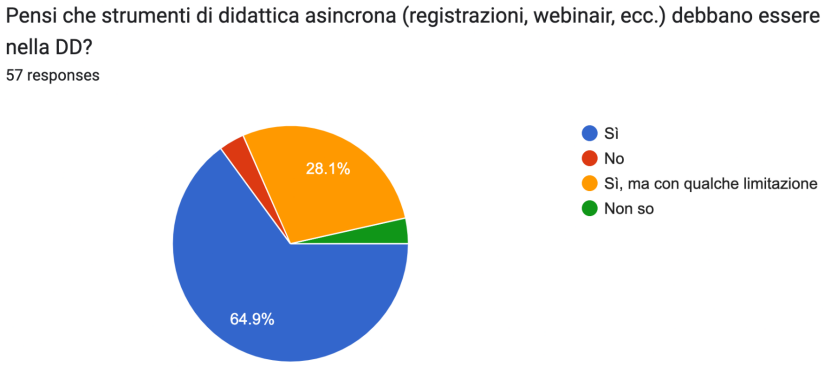
Chart 15. «During HOT courses, English language tests were easier».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

The two charts regarding respondents' performance and their perception towards English tests suggest that not only students' grades did not improve (yet 31.5% of them disagreed with this position), but also more than 50% disproved the affirmation «During HOT courses, English language tests were easier».

Chart 16. Do you think asynchronous teaching tools (recordings, webinars, etc.) should be included in HOT courses?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

Chart 17. Do you think recordings can replace lectures in HOT and face-to-face classes?

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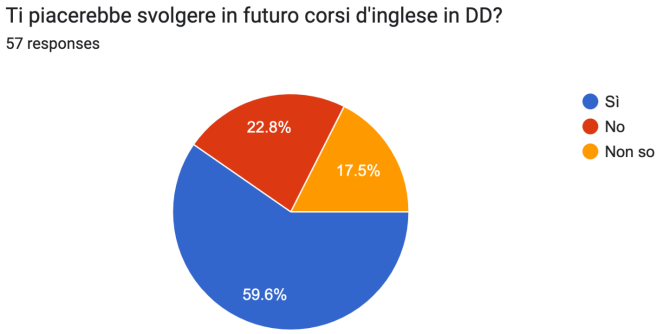
These two charts concern the employ of asynchronous instruments in class, or whether these tools could replace HOT or traditional classes. The former chart indicates that 93% of respondents would have been favorable with the implementation of asynchronous tools, while the latter points out that 75.4% of them did not consider recordings a valid substitute of classes. In other words, students believed synchronous tools may have a significant role in class, but they did not think it could replace classes with live instructors.

Chart 18. Would you consider attending English HOT courses in the future?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

What stands out in this table is a significant response of "yes" (59.6%), signaling students would repeat the experience with HOT English classes. In contrast, almost one quarter of respondents would not repeat the experience, and 17.5% of students were unsure.

Chart 19. Do you think the online teaching materials to be…

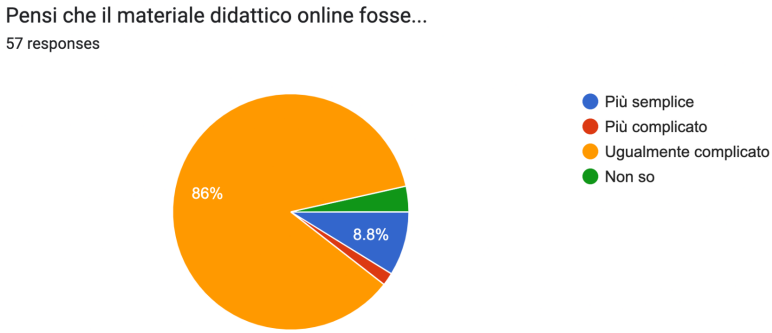


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Chart 20. Do you think the traditional teaching material to be…

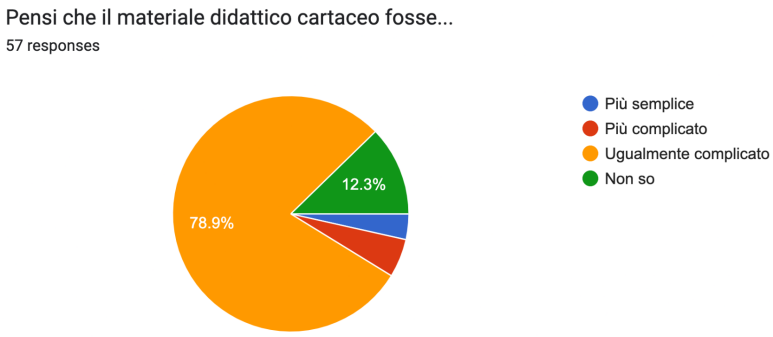

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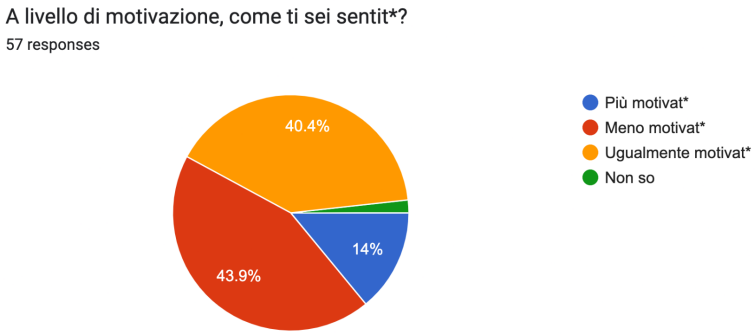
Chart 21. How do you think the exercises/tasks were?

(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

The three tables compare respondents' perceptions of exercises and homework, both physical and online. A preponderant part of respondents did not perceive any difference with previous years.

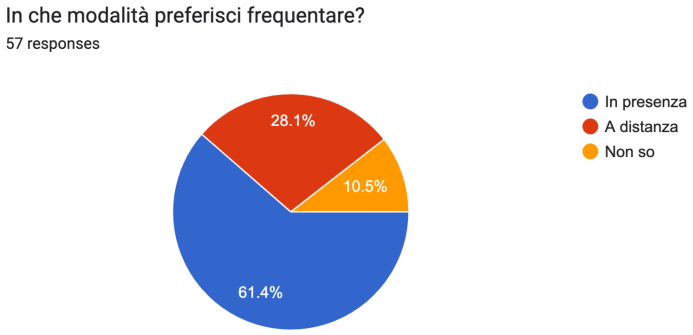
Chart 22. In terms of motivation, how did you feel?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/sondaggio-riguardante-luso-della-didattica-duale-per-linsegnamento-della-lingua-inglese/). (Retrieved February 24, 2023).

This figure denotes students' motivation in comparison with previous years. Data reveals that generally students felt less motivated (43.9%), nonetheless 54.4% of interviewees felt to be equally motivated (40.4%) or even more motivated (14%).

Chart 23. What is your favorite medium?



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The last question involves responders' favorite medium of attendance. Interestingly, on the one hand a greater number (61.4%) of them prefers going to class, on the other hand, a substantial number of interviewees chose the online medium over the traditional one (28.1%).

Question n° 31 was structured to discover students' points of view, although it was not mandatory to complete the questionnaire. 29 respondents decided to fill out question n° 31. Below is a list of selected responses.

Two participants commented:

> *Nella mia esperienza personale la DD mi è stata utile principalmente per non perdere le lezioni in caso di malattia o lontananza dalla sede universitaria, e per l'uso delle registrazioni che mi hanno permesso di poter seguire anche i corsi con sovrapposizione di orario. Un difetto è sicuramente quello relativo alle interazioni in presenza-online: da entrambe le parti non sempre sono riuscita a interagire in maniera immediata e naturale, a causa di complicazioni di microfoni, audio, telecamere e connessione, con il risultato che spesso ho preferito non farlo.*[69]

And

> *Quando si fa didattica duale ci sono spesso problemi a livello tecnico (microfoni/telecamere che non funzionano) che fanno spesso perdere tempo. La motivazione credo che sia inoltre ridotta dato che le lezioni in presenza offrono un'esperienza più immersiva. Per quando riguarda gli aspetti positivi della dd, essa permette a chi non si può permettere o non trova un appartamento, di seguire comunque il corso universitario. Inoltre, permette di gestirsi meglio i tempi, dato che non si deve andare in università.*[70]

These two opinions highlight the issues concerning class devices such as webcams and microphones, issues that may interfere with the flow of learning and often result in the waste of precious class time. Since devices are delicate in terms of configuration, they need to be updated, and personnel must be trained to manage with issues and last second problems.

Next are two more comments that I chose to present together for their similar nature:

> *Penso che la DD non porti degli svantaggi nell'apprendimento, io sono riuscita ad interagire e a condividere delle foto per creare un discorso. Ma la DD porta degli svantaggi nell'interazione tra compagni, nella gestione per l'insegnante tra studenti in aula e a casa e della parte audio. Inoltre avevamo un compagno diversamente abile in classe ed era più facile in presenza riuscire a capirlo e ad includerlo nelle discussioni, sia per noi che per la professoressa.*[71]

---

[69] Translation: «On my side, HOT Instruction was useful in order not to lose classes, when I was sick, or when I was too far from class. Recordings has helped me with overlapping hour classes. A drawback is the one concerned with interactions in presence/online. Both in class and online I wasn't always able to interact naturally, due to audio, and video, and connections problems, resulting that I often prefer not to intervene».

[70] Translation: «Often, in HOT classes there are technical problems (with microphones and webcams) that take time to be fixed. In addition, I believe motivation is reduced since presential classes offer a more immersive experience. For what concerns, HOT's positive aspects, it allows students to attend university even for those who can't or don't find an apartment. Also allows you to manage your time better as transportations would not be an issue».

[71] Translation: «I think HOT didactics doesn't bring any disadvantage to the learning process. I was able to share pictures to create a speech (or a pitch). However, HOT didactics brings disadvantages in terms of interaction between classmates, coordination between professor and students, and at home students often have audio

And

> *Strumento utile in caso di necessità che, secondo me, non per forza ostacola l'apprendimento ma sicuramente non favorisce l'interazione con i compagni. Spesso ho avuto l'impressione che ci fossero due classi separate, una in presenza e una online, che seguivano la stessa lezione senza saperlo. Secondo la mia esperienza, quindi, i difetti della DD hanno a che fare principalmente con la mancanza di dialogo tra gli studenti a casa e quelli in classe, un aspetto che indice profondamente nella volontà di partecipare o meno alla lezione.*[72]

These comments focus on interaction, another issue that was highlighted in chapter 4.1. Hybrid or HOT education limit interactions between online and students in class and professors. However, there are certain countermeasures that may ease this difficulty. For instance, students should not be treated as passive participants, but encouraged to be involved in classes' organization. An attempt in giving them responsibilities such as creating the role of 'chat moderators' could infuse new motivation in them.

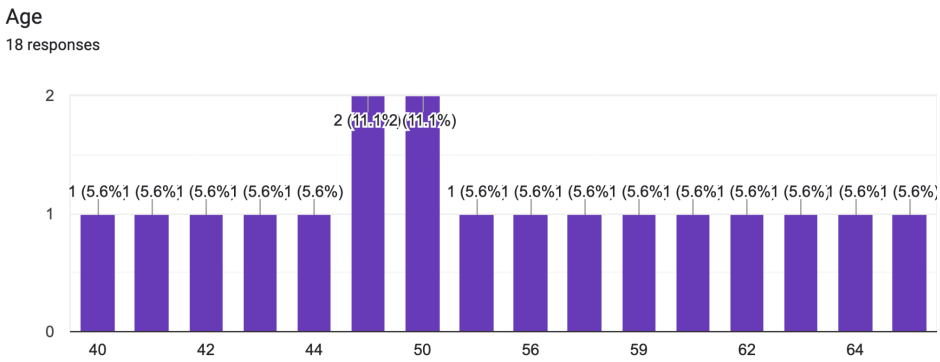
5.2 Teachers' aggregated data

Having discussed students' responses, this section deals with teachers' responses, aiming at providing a complete picture of the whole phenomenon. Below are 24 selected questions with their respective responses.

problems. Moreover, we had a student with disabilities in class, I think it was easier interacting with them in class, and thus include them in the discussions».

[72]Translation: «To me, [HOT instructions] is a useful tool in case of necessity, that doesn't hinder the learning process, but surely doesn't encourage students to interact with each other. Frequently, I had the impression that there were two separate classes. One in presence, and the other online, that attended the same classes without realizing it. In my experience, HOT didactics' drawbacks are those concerning the lack of communication between online and presential students, which is an aspect that shows willingness to participate in class or not».

Chart 24. Age



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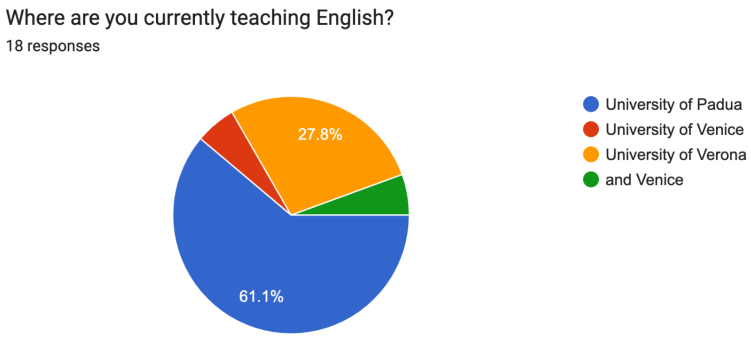
There is a clear an obvious difference in age between students and teachers. The youngest respondent is 40 while the oldest is 65. The average age among interviewees is 52 years old.

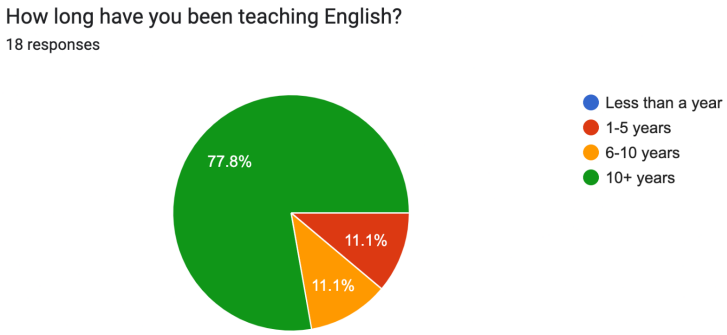
Chart 25. Where are your currently teaching English?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

In Chart. 25, the vast majority of interviewees is shown to work at the University of Padua (61.1%), while the University of Verona reaches 27.8%. Unfortunately, few professors from the University of Venezia have fill out the questionnaire (2).

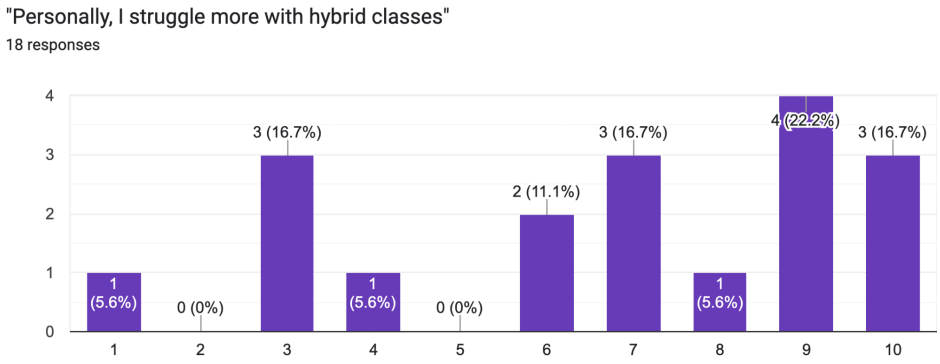
Chart 26. How long have you been teaching English?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

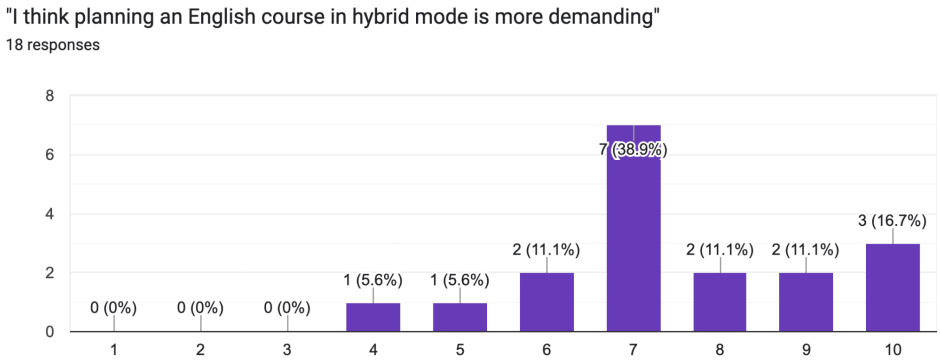
From the data in chart, it is obvious that more than three quarters of the professors have a conspicuous experience in this field (more than 10 years). Only 22% of them have less than 10 years of experience.

Chart 27. «Personally, I struggle more with hybrid classes».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

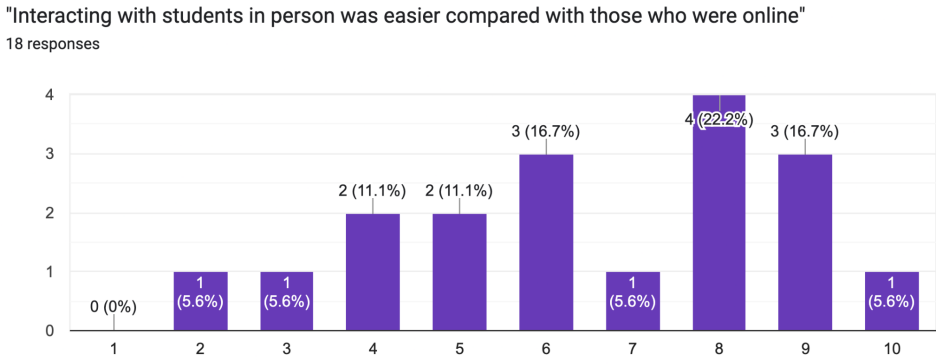
Chart 28. «I think planning an English course in hybrid mode is more demanding».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

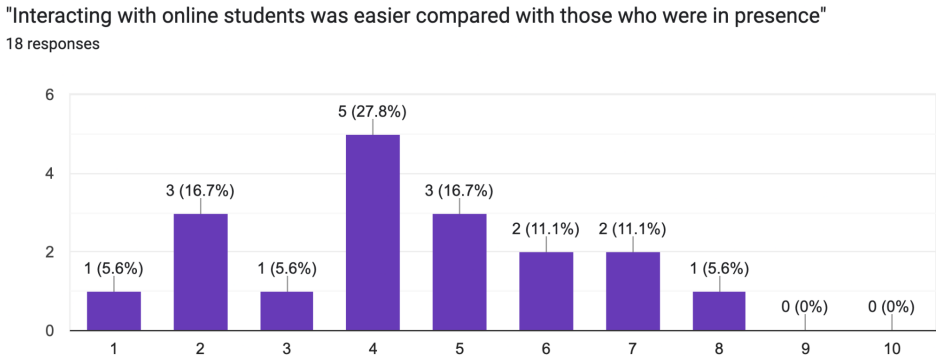
The charts are quite revealing in several ways. First, professors felt to have struggled more with HOT classes (72.3% of them have responded with six or more). Secondly, almost everyone thought that English classes' planning requires more effort compared to traditional courses.

Chart 28. «Interacting with students in person was easier compared with those who were online».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

Chart 29. «Interacting with online students was easier compared with those who were in presence».



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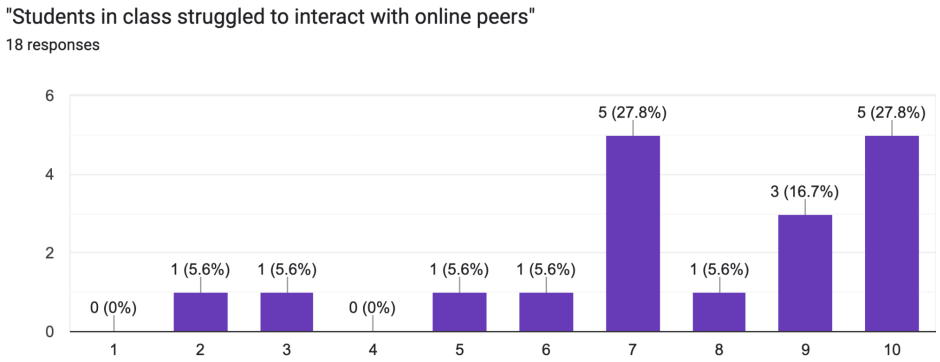
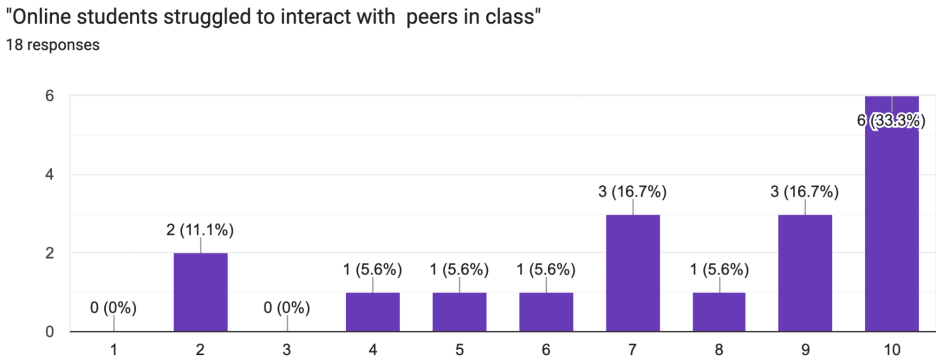
Data from these charts show professors felt interacting with students in class was easier rather than those who were in presence. This may have caused students to be perceived less considered by instructors.

Chart 30. «Students in class struggled to interact with online peers».



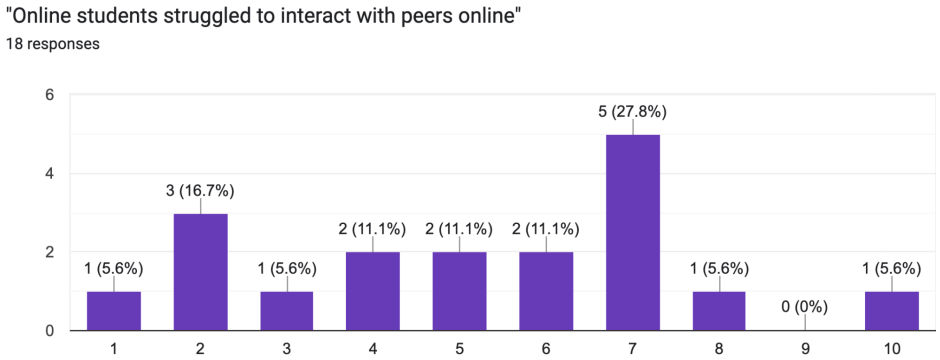
(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

Chart 31. «Online students struggled to interact with peers in class».



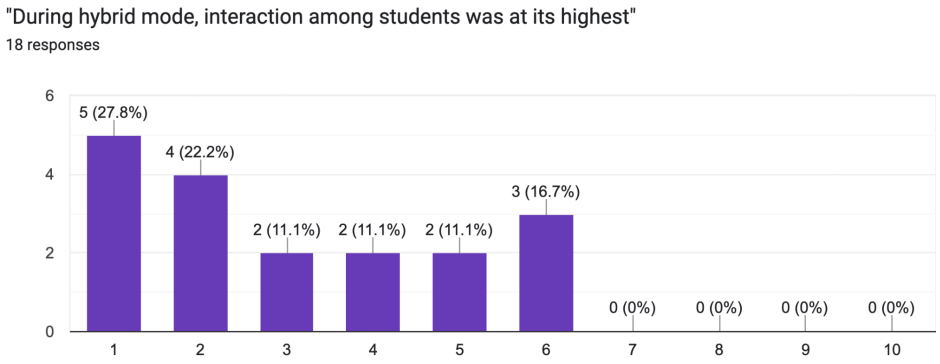
(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

Chart 32. «Online students struggled to interact with peers online».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

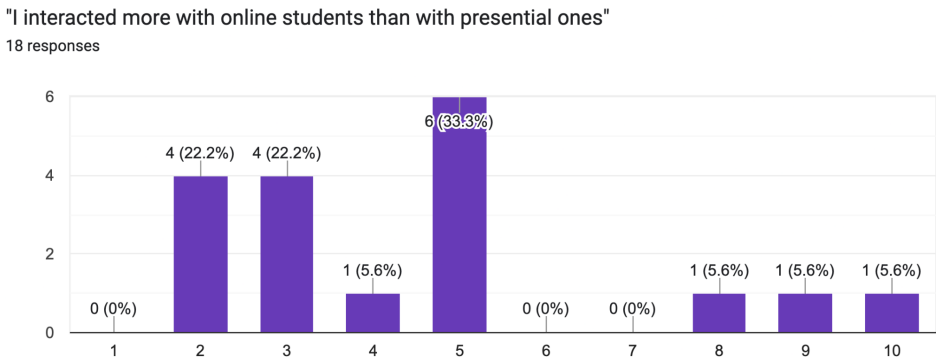
Chart 33. «During hybrid mode, interaction among students was at its highest».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

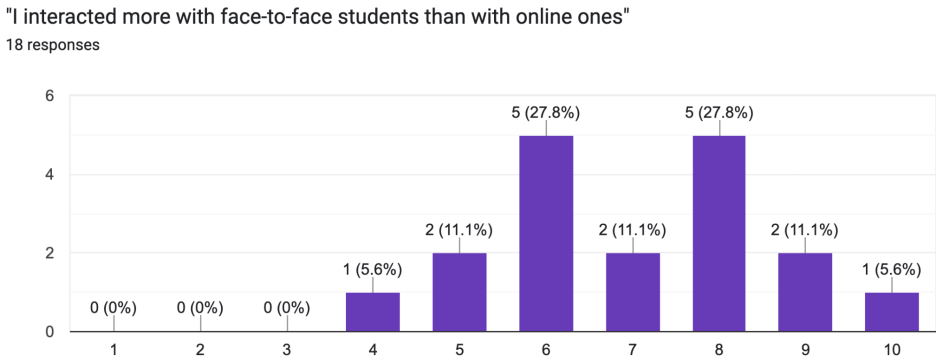
Regrettably, instructors also felt students on both ends were unable to interact with each other, as a matter of fact, at least 14 respondents out of 18 have responded six or more to the affirmation: «Students in class struggled to interact with online peers», «Online students struggled to interact with peers in class», and «During hybrid mode, interaction among students was at its highest».

Chart 34. «I interacted more with online students than with presential ones».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

Chart 35. «I interacted more with face-to-face students than with online ones».



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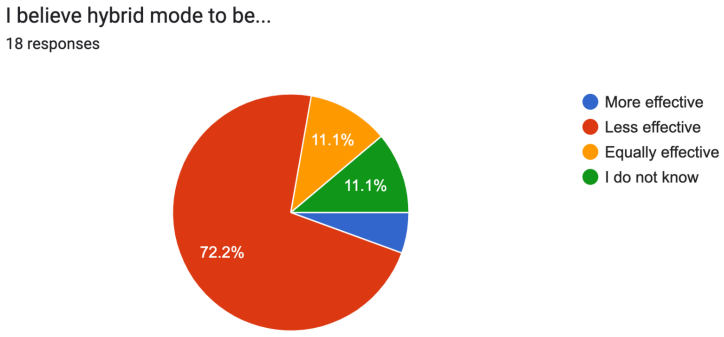
Data from this table can be compared with the data in Chart 9 and 10, which show professors' tendency to interact more with face-to-face students. For instance, chart 34. shows 83.3% of professors have interacted less with online students.

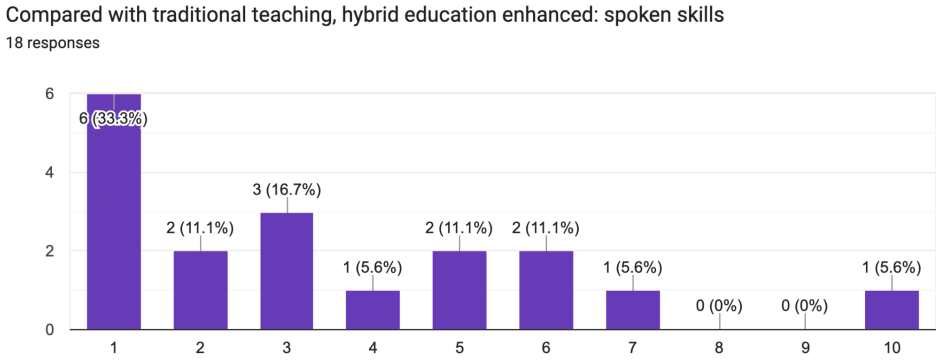
Chart 36. «I believe hybrid mode to be…».



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

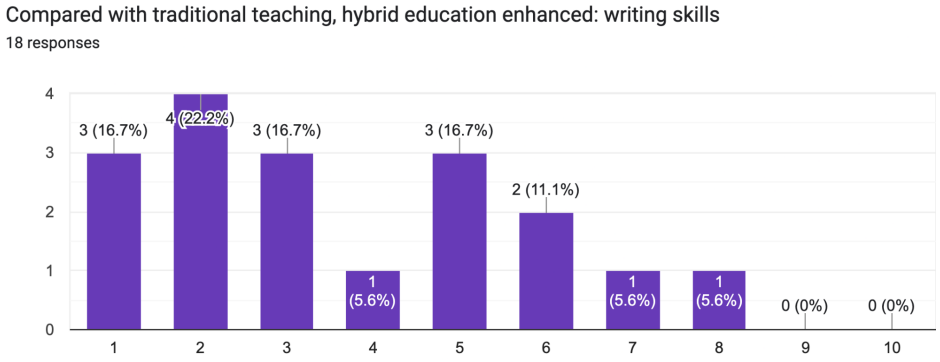
The most striking result to emerge from the data is that a rather large number of professors think HOT instruction to be less effective than traditional deliveries, remarkably only one respondent thinks HOT classes may be more effective than old-fashioned mediums.

Chart 37. Compared with traditional teaching, hybrid education enhanced: spoken skills.



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

Chart 38. Compared with traditional teaching, hybrid education enhanced: writing skills.



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

Chart 39. Compared with traditional teaching, hybrid education enhanced: listening comprehension.

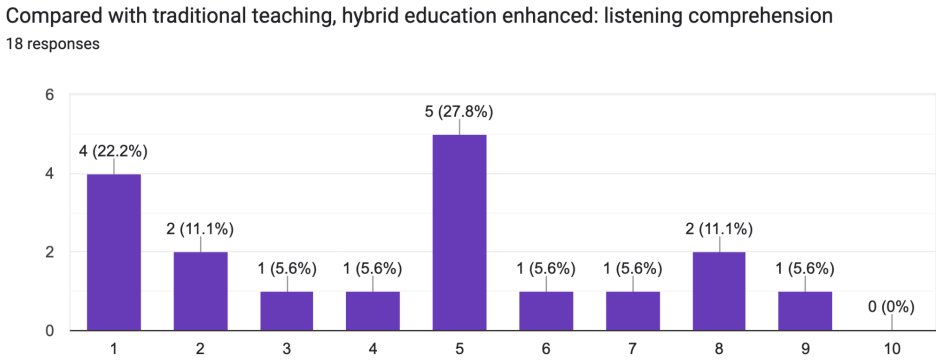


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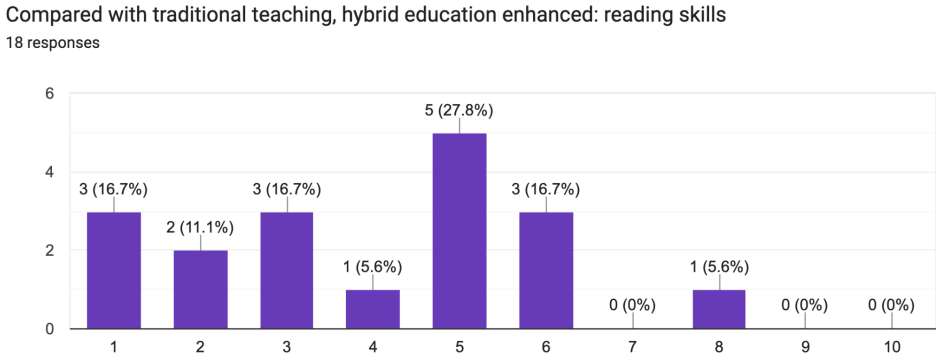
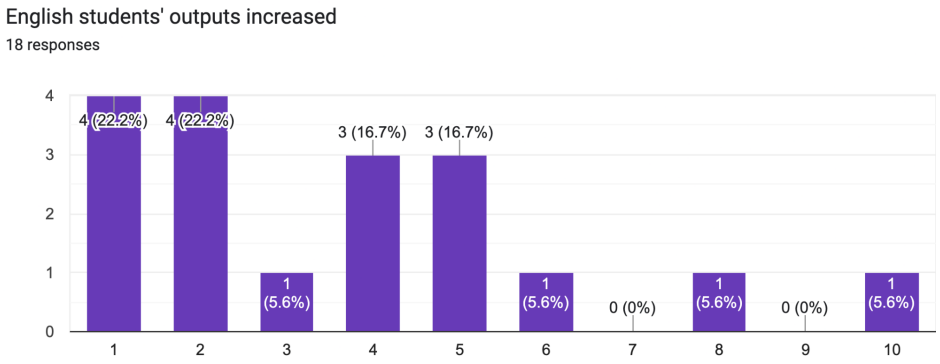
Chart 40. Compared with traditional teaching, hybrid education enhanced: reading skills.



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

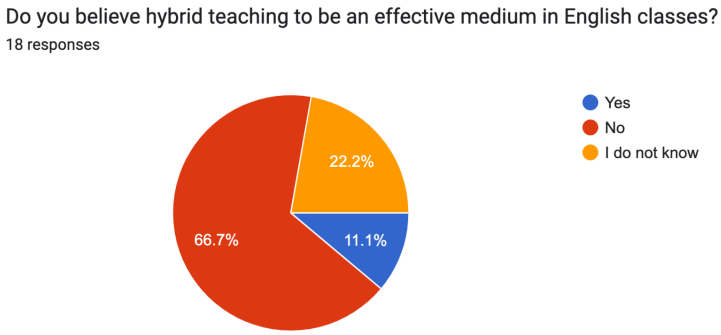
Chart 41. English students' outputs increased.



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

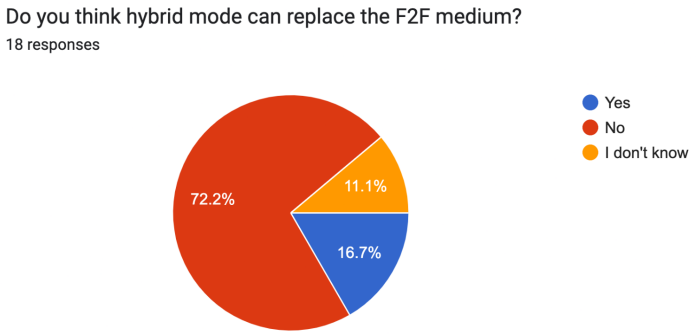
Overall, instructors think none of the four skills has been enhanced, pointing out HOT classes to be less effective than previous ones. Moreover, instructors claim students' outputs from 2020 and 2021 did not increase.

Chart 42. Do you believe hybrid teaching to be an effective medium in English classes?



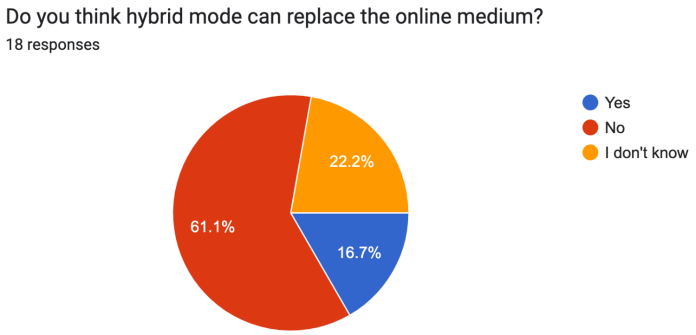
(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

Chart 43. Do you think hybrid mode can replace the F2F medium?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

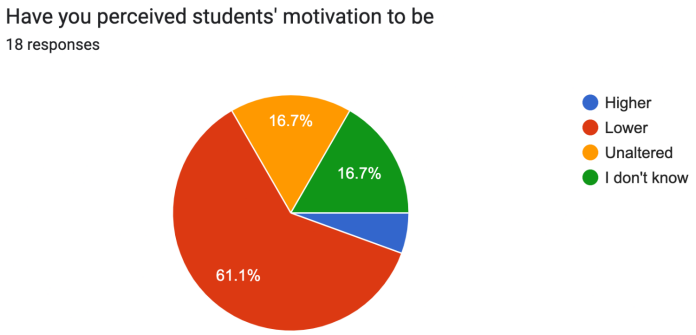
Chart 44. Do you think hybrid mode can replace the online medium?



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

In short, these results show that the majority of professors do not think HOT classes could replace traditional and/or online classes. Curiously, the same percentage that thinks HOT classes could replace traditional classes, also thinks HOT classes may replace online ones.

Chart 45. Have you perceived students' motivation to be…



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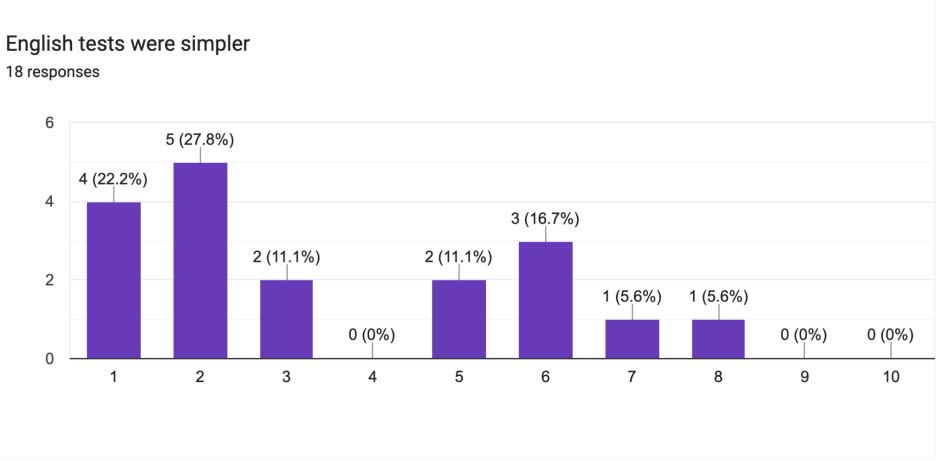
The table above illustrates instructors' perception of students' motivation. As seen, 61.1% of teachers believed students' motivation to be lower. Interestingly, only one respondent believed students' motivation to have increased, while 16.7% of interviewees considered students' motivation to be unaltered.

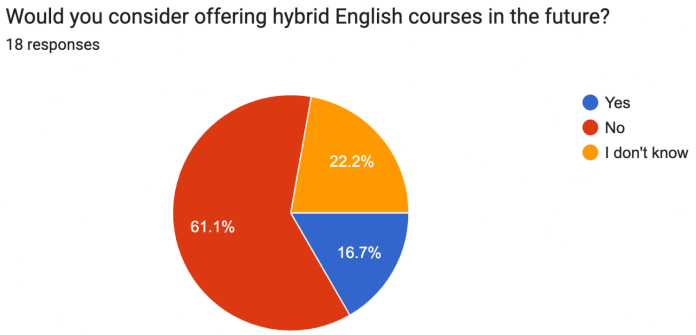
Chart 46. English tests were simpler.



(URL: https://davidebarbieri7.wordpress.com/2023/02/24/questionnaire-concerning-instructors-satisfaction-toward-hybrid-mode-or-didattica-duale-english-language-courses/). (Retrieved February 24, 2023).

From the chart, most respondents (72.2%) considered English tests to be at least at the same level of difficulty or more difficult, while the remaining part (28.8%) have responded with six or above.

Chart 47. Would you consider offering hybrid English courses in the future?



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As well as the students' questionnaire, I asked professors to give their opinions on their experience. Below are some of the most interesting comments instructors have left.

> *It took a bit of time to get used to hybrid teaching. We were told not to interact with online students, but I did anyway. Since the people in class had masks on, it was in some ways easier to interact with people online who did not have masks on and plus their names were written on their zoom link. However, I think online students were less motivated than students in class.*

I have found this comment rather interesting, and alarming at the same time, since the respondent claims that they were told not to interact with online students. In general, it seems that some universities' guidelines suggested not to interact with students who were not in class. This could explain a low perceived interests from professors towards online students, as seen in Chart 9. and 10. In addition, they believed online students to be less motivated, nonetheless it may be presumed certain universities' guidelines incentivized learners' decrease of motivation.

The following comment was rather long; therefore, I chose to split it in two parts:

> *A lot of teachers and professors complain about managing hybrid teaching (so having students accessing the lesson via Zoom at the same time that there are students present in the classroom) -- but once I got used to it, it wasn't a problem for me.*
> *The main problems/annoyances were : 1) organizing students into breakout rooms for conversation practice or group work (this was often quite tedious depending on class size) 2) some technical difficulties that would arise when trying to have the students in Zoom hear the classroom students and v/v via the microphone system, also for example when I would show a video and the audio of*

the classroom clashed with the Zoom audio, I had to set up two videos playing at once with specific audio settings and this was a hassle to figure out 3) students not wanting to show their faces via webcams : many claimed that they couldn't because of a connection problem but many were just being lazy 4) students not participating or being lazy in breakout rooms 5) students would connect to the meeting and then zone out so when I put them into breakout rooms their partner would then complain that there was nobody there. Or they would come in and out constantly due to connection problems.

The only real advantage to hybrid mode for me personally was that I could hear the students in Zoom through my speaker/headphones very clearly and their names were written on the screen adjacent to their face so it was easy to call on them and speak directly with them; when students are in the classroom they are sitting far away from me and often I can't hear them very well when they speak nor can I learn their names if there are a lot of them.

The instructor provided an insightful point of view, pointing out some benefits and inconveniences. For instance, they were content with the audio quality and the possibility of seeing students' names, although sometimes setting the audio was quite challenging. However, what concerned them the most was students' behavior when lessons demanded to work in groups. They claimed certain students not only did not want to turn on cameras (saying they had connection problems), but they also did not follow classes at all. Unfortunately, this is not an easy to solve issue, due to the involvement of several factors. The medium easily contributes to enhancing episodes such as the one described in the comment, but the main reasons may lie in students' motivation and eagerness to learn, as well as the interactivity of classes.

Below is the second part of the comment from the same instructor, who happened to be a student as well:

I must say that I don't mind hybrid mode. I appreciate the fact that it gives the opportunity to people who have difficulty attending (workers, parents, disabled, ill, living far away etc.) to participate. During Covid I also followed lessons of a Magistrale course which were in hybrid mode and it was a great advantage for me, rather than simply studying all by myself as a "non-frequentante".

Yet as a teacher I prefer, rather than hybrid mode, either everyone in the classroom or everyone on Zoom. I have taught some classes for ph.D. students where everyone is on Zoom and it's easy to share documents or slides with them, show them videos, and communicate with them: their names are there identifying them so I learn their names very easily and speak more directly with them than I can in the classroom, plus I am hearing them speak through my headphones so their speech is very clear (vs. in the classroom when they are sitting meters away from me).

I believe that young undergraduate students should attend lessons and come to the university every day; they should be encouraged or required to do so, because they are young and building their life experience and if they stay at home they won't meet anyone and won't make many connections that

are important for their learning, growth and future. However, people who have a legitimate reason for not being able to attend should be given the opportunity to follow in Zoom, or at least video-recordings of the lessons. These people already have the right to take exams as non-frequentanti and are paying tuition and fees. I would advocate for providing them a better service than just "Look at the slides, read the books and come take the exam". We have the technology to provide them a better service so we should. Of course, if we start letting people attend in Zoom it will mean that many fewer students will physically come to the university and the city's economy will suffer for this. This is why I think Zoom attendance must be available only for certain categories of non-attenders who can prove their need to attend in Zoom.

Even though the professor had been attending a HOT course as a student, they highlighted their preference toward the online medium rather than the HOT one, because of advantages such as: easiness of sending documents, and videos, communicate with students, and recognizing them (as web-conferencing programs also shows participants' names). Yet, they brought another fascinating stance. Even if universities should encourage, especially young students, to attend in class, there are determined categories that are unable to do so. Since technology may come in handy, they thought online classes could be granted to those who cannot join presential ones.

Newt is the comment of another professor, who had the same problem with working in groups.

It started as a novelty that quickly wore off. It meant getting in earlier to set up the lab. During lessons, it was difficult to keep a check on what online students were doing, as they generally had their cameras off and were reluctant to contribute. Online group work was difficult as often I would go into a breakout room and find no one doing the work. Although some groups did work well together, it was not common. Sometimes online students vastly outnumbered students in class.

On the one hand, this seems to be a frequent problem when it comes to working in groups. Students without supervision tend to work less or not at all. On the other hand, it is undeniable that «sometimes online students vastly outnumbered students in class», however it is vital to remember HOT classes were delivered during the 2020 and 2021 pandemic period.

Online only can be oddly challenging. The individual student receives your full-frontal focus. Hybrid (with some students in the classroom and some students online) is frustrating (it is easy to forget to direct attention towards either one or the other) and heavily dependent on the technology working. Overall, you waste more time with hybrid.

The comment above claims that HOT classes are challenging in terms of managing the two groups of students. Technology has a major impact on classes.

> *Hybrid teaching may work if the sessions are delivered by a team of two or three teachers, assistant, technicians. I would prefer to teach either online or face-to-face. Hybrid teaching is difficult with the large numbers we have at uni, and if you want to use the communicative approach. The only way to manage it would be to have two teachers in class; one who monitors the students online, and one who goes round the class monitoring the students who are doing the tasks in person.*

These two instructors provided another interesting point of view. Although the comments are rather short, they indicate the necessity of introducing additional work figures, such as professors or technicians. Although it may seem expensive, it could substantially improve class quality, as one teacher is no longer required to monitor both groups.

To sum up, both students and instructors have indicated a common ground of advantages and disadvantages: firstly, they both agreed on the fact that HOT instruction may help non-attending students such as workers, parents, etc. accessing education in a more flexible manner. Nonetheless, there are some challenges respondents strongly highlighted, for instance, technology has a major role on class outcome, as a matter of fact, if devices do not work properly, they cause interruptions and delays. Besides, there seems to be less interaction among students, as well as between students and teachers.

However, I have encountered rather significant perception differences between learners and instructors. For example, students think HOT classes to be equally effective in comparison with traditional ones, while professors believe it to be less effective; moreover, 40.4% of students felt as motivated as previous years (14% even more motivated), while 61.1% of professors perceived the opposite. Another intriguing statistic lies in the fact that 59.6% of students would like to attend a HOT course in the future, whereas 61.1% of professors would not want to offer HOT classes in the future.

5.3 Students' crosstabs and additional data

While the previous section deals with both groups' perceptions, the present section introduces a new layer to the research. Surely, aggregated responses provide insightful data for research purposes, however additional data manipulation discloses unexpected trends. Regrettably, in the successive phase of the investigation, instructors' individual data were not

considered. The reason lies in the modest size of the sample (18 respondents) and the homogeneity of responses, while students tend to have a wider range of opinions.

Thus, an Excel file containing a copy of students' individual responses was downloaded from Google Forms, and individual students' responses were revised.

For the sake of honesty, all data adjustments are indicated:

1) Linear scales responses (from 1 to 10) were parted into: "disagree" (which includes all the responses from 1 to 5), "partially agree" (from 6 to 7), and "strongly agree" (from 8 to 10).
2) Responses were reduced from five categories ("100% online", ">75% online", "50% online/in class", ">75% in class", "100% in class") to three (">75% online", "50% online/in class", "100% in class").
3) All responses were translated to English.

The adjusted data were processed by a program named Statistical Package for Social Science (SPSS), developed by IBM. Among the many functionalities, the applicative allows the creation of contingency tables, or crosstabs. According to Merriam Webster dictionary a crosstab is «a table of data in which the row entries tabulate the data according to one variable and the column entries tabulate it according to another variable[73]». Crosstabs are convenient tools for seeking correlations. As said, the HOT medium is constituted of a face-to-face and an online component, the present investigation's aim was digging into both students in class and online ones' experience with HOT and observe both groups' standpoints.

Chart 48. "Age" and "During HOT English classes, which was your attendance medium?"

	20-29	30+	Total
>75% in class	11	0	11
>75% online	28	9	37
50% online/50% in class	9	0	9
Total	48	9	57

[73] Cfr: https://www.merriam-webster.com/dictionary/contingency%20table (Consulted on January 27, 2023).

The present table of contingency shows two remarkable pieces of information; the first regards the distribution of students in the age gap from 20 to 29 and those who are over 30 years old. As shown in the crosstab, 48 people out of 57 were in the age gap 20-29, while only 9 students were over 30 years old. In addition, what stands out is the lack 30+ students in class, as the entire group chose not to attend physically.

Chart 49. "Compared with face-to-face English classes, do you think HOT Instruction to be…" and "During HOT English classes, what was your attendance medium?"

	Less Effective	Equally effective	More effective	I don't know	Total
>75% in class	8	3	0	0	11
>75% online	12	20	4	1	37
50% online/50% in class	4	4	0	1	9
Total	24	27	4	2	57

The result of the crosstab illustrates the correlation between attendance and students' perception toward HOT classes. What stands out is an appreciation of the medium for those who attended online for 75% of the time or more, while those who attended majorly in class had worse opinions.

Chart 50. "Would you consider attending English HOT courses in the future?" and "During HOT English classes, what was your attendance medium?"

	Yes	No	I don't know	Total
>75% in class	4	5	2	11
>75% online	25	5	7	37

50% online/50% in class	4	3	1	8
Total	34	13	10	57

Chart 50. confirms the results shown in Chart 49. Online students would consider attending future HOT English courses. Even those who shared a balanced amount of time between online and in class had, more less, the same opinion (5 out of 11), however those who attended mostly in class seem to have been less satisfied with classes, although the difference between "yes" and "no" may result inconsistent.

Chart 51. "In terms of motivation, how did you feel?" and "During HOT English classes, what was your attendance medium?"

	Less motivated	**Equally motivated**	**More motivated**	**I don't know**	**Total**
>75% in class	8	3	0	0	11
>75% online	12	17	7	1	37
50% online/50% in class	5	3	1	0	10
Total	25	23	8	1	57

This crosstab compares the results of two key factors: attendance and motivation. It seems online students had a more positive opinion of HOT classes (17 out 37 responded "equally motivated" and 7 "more motivated"), while students in class appeared to be less motivated (8 out of 11). This trend seems to be replicated in the tables below.

Chart 52. "What's your favorite medium?" and "During HOT English classes, what was your attendance medium?"

	I don't know	In class	Online	Total
>75% in class	0	11	0	11
>75% online	5	17	15	37
50% online/50% in class	1	7	1	9
Total	6	35	16	57

The outcome is obvious: most students preferred attending classes face-to-face (35 out of 57), despite a substantial chunk of respondents who preferred the online medium. Interestingly, a consistent part of them belongs to the ">75% online" group.

Chart 53. "During HOT English courses, I struggled more" and "During HOT English classes, what was your attendance medium?"

	Disagree	Partially agree	Strongly agree	Total
>75% in class	3	3	5	11
>75% online	24	9	4	37
50% online/50% in class	4	3	2	9
Total	31	15	11	57

Chart 54. "During HOT classes, I had more difficulty in learning" and "During HOT English classes, what was your attendance medium?"

	Disagree	Partially agree	Strongly agree	Total
>75% in class	4	5	2	11
>75% online	29	5	3	37
50% online/50% in class	5	2	2	9
Total	38	15	7	57

In accordance with previous results, the contingency tables illustrate a broad disagreement in terms of learning difficulty between the ">75% online" group and ">75% in class" group. The former seems to have had less learning problems and struggled less compared with previous years; the latter shows to generally have had stronger struggles and more learning problems.

Chart 55. "During HOT classes, my grades improved" and "During HOT English classes, what was your attendance medium?"

	Disagree	Partially agree	Strongly agree	Total
>75% in class	10	0	1	11
>75% online	18	8	11	37
50% online/50% in class	8	1	0	9
Total	36	9	12	57

Regarding the perceived results, various respondents thought their grades did not improve, yet more positive feedbacks were given by the ">75% online" group, in fact, 11 out of 37 thought their grades improved during HOT English classes. Apparently, only two respondents in the categories ">75% in class" and "50% online/50% in class" agreed, at least partially.

However, perception and reality may differ, and as a matter of fact, to confirm or deny both learners and instructors' perception, additional data on marks is needed. During this investigation, I have largely searched for numbers on this topic, regrettably very little data are available on universities websites. The only relevant information about grades I have found so far, is in *Centro Linguistico di Ateneo's*[74] (CLA) website[75] of the University of Verona. Yet, a digression should be done to introduce how CLA tests the students.

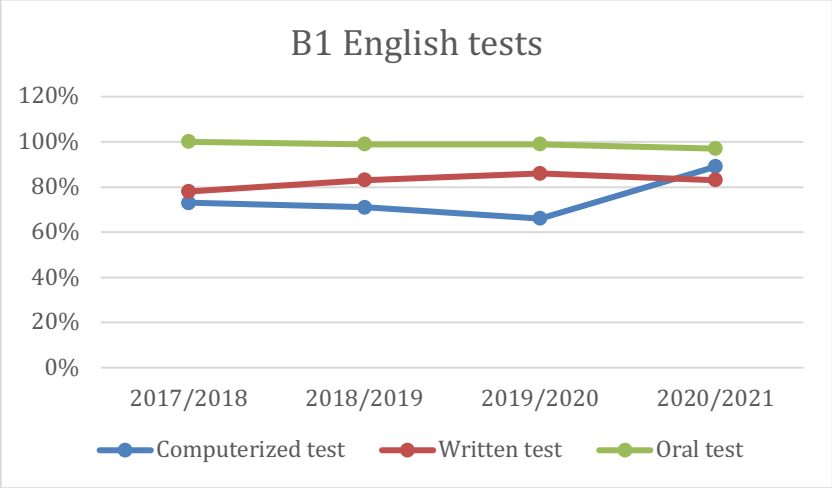
Language certifications are composed of three parts: a computerized test, which contains C-tests, cloze-tests, and listen-comprehension tests; a written test; and an oral speaking test. Moreover, it is necessary to point out that before the academic year 2020-2021, tests were conducted in university classes, under the supervision of language teachers, and the

[74]CLA is an organization within the Italian universities that provide courses and certifications for the enrolled students.
[75] Cfr: https://cla.univr.it/it/servizi/test-di-certificazione-linguistica (Retrieved January 29, 2022).

computerized tests were conducted in computer labs. Nonetheless, during the period considered in the present analysis, due to Covid-19 restriction, tests were carried out via web.

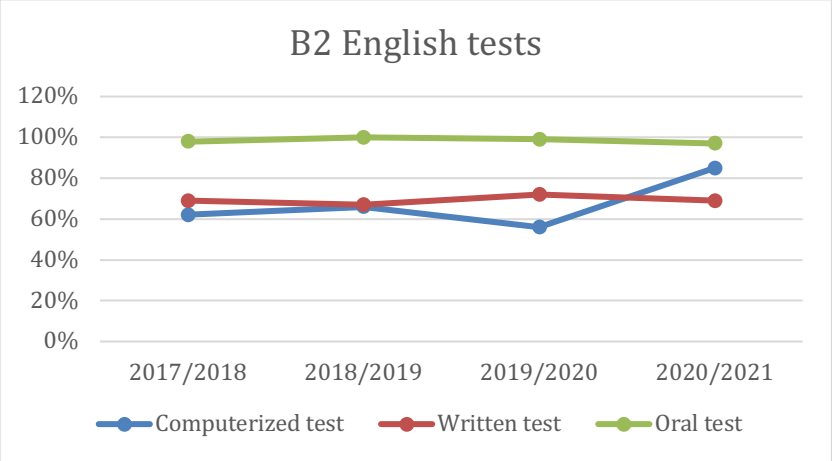
Below are presented attempted rate, success rate and percentage of success for the three tests in the academic year 2017-2018, 2018-2019, 2019-2020, and 2020-2021.

Chart 56. B1 English tests during from 2017 to 2021 at the University of Verona



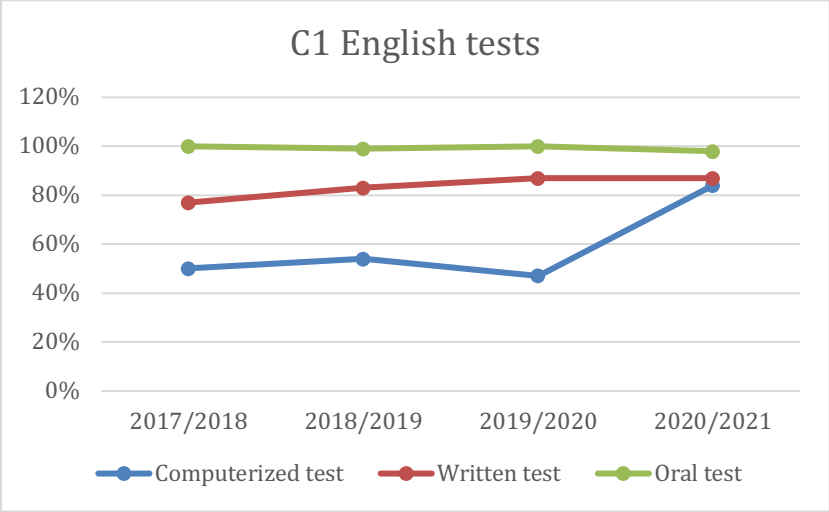
Cfr: https://cla.univr.it/it/servizi/test-di-certificazione-linguistica (Accessed on January 31, 2023)

Chart 57. B2 English tests during from 2017 to 2021 at the University of Verona.



Cfr: https://cla.univr.it/it/servizi/test-di-certificazione-linguistica (Accessed on January 31, 2023)

Chart 58. C1 English tests during from 2017 to 2021 at the University of Verona.



Cfr: https://cla.univr.it/it/servizi/test-di-certificazione-linguistica (Accessed on January 31, 2023)

As proven by Charts 56, 57, and 58, test success percentages did not fluctuate dramatically during the four years, except when computerized tests were concerned. In all three charts, computerized tests had a phenomenal growth, reaching, and sometimes surpassing, written tests success rate. Such peaks do not prove the effectiveness of HOT instruction for two reasons: the former regards class deliveries at the University of Verona, since not all courses were delivered with the HOT medium (some English courses were delivered only via web), the latter concerns the organization of exams.

During the pandemic period computerized tests did not have further control software devices, except for a single webcam and the requirement of keeping the test page at full and shared screen. The sharp peak in success rate might be caused by the lack of control during the computerized sessions. However, it is simply a hypothesis, that cannot be backed by any proof nor data.

6.0 Conclusion

The aims of the present research were to trace back hybrid education's history, present a recent application of the hybrid medium, and analyze both students and teachers' stances during the 2020 and 2021 pandemic period, in order to point out limits and potentialities.

The main result lies on the opposite opinions on the medium presented by learners and instructors. Not only students thought HOT classes to be equally effective in terms of intake as 2019 and previous classes, but also the medium itself to be equally effective as the one provided in past years. Another interesting finding is that the majority of students felt their motivation not to be varied, and surprisingly, in some cases, improved. Moreover, students did not perceive any variation in terms of struggle while attending English courses, and the general idea that was transmitted by questionnaire's feedback confirmed such perception. In addition, students highlighted their preference towards the implement of asynchronous tools and devices in HOT classes (and so did the teachers). However, a distinction must be done. Learners who spent more than 75% percent of time online rather than in class tend to be less critical with the medium. As a matter of fact, crosstabs indicate students online to have had more positive inclinations, while the other group tended to be more judgmental. Yet, the most outstanding feedback I have encountered is that, despite a large majority of students still prefer physically going to class, the majority of students would attend HOT classes in the future.

However, criticalities have been pointed out. For instance, online students struggled to interact with both teachers and peers in class, and felt to be less considered by instructors. Interestingly, instructors and students had the same perception toward this matter, even though, in the comment section, a teacher claimed they were told not to interact with online students, implying that the faculty asked to do so. As far as I am concerned, I cannot confirm nor deny the assertion due to lack of evidence.

On teachers' side, the appraisal looked more uniform. Most teachers believed the medium to be more demanding in terms of energy and coordination, and to not help students' outputs or comprehension skills as much as former classes. They also added classes were highly dependent on devices and internet connection, resulting in massive delays sometimes. According to professors, the HOT medium was not as effective as traditional classes or the online delivery.

Nonetheless, teachers' perception on students' motivation is detached from students' perception on their own motivation. Teachers believed students to be less motivated during that period, while students claimed to be at least equally motivated.

In my view, the present study is limited by two factors. The first regards the samples sizes, as both groups cannot be considered representative samples, in fact, further studies should be aimed at improving the sample sizes, including more high educational institutions, and students from different faculties. The second issue deals with the period itself. Even though Covid-19's lockdown allowed the implementation of HOT instruction, economic uncertainty, fear of the future, and general anxiety greatly contributed to people's morale. I believe the present study can contribute to informing and making aware organizations, professors, and students when it comes to introducing a delivery such as the HOT medium.

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