EDITED BY SALVATORE ZINGALE

DESIGN MEETS ALTERITY

CASE STUDIES, PROJECT
EXPERIENCES, COMMUNICATION
CRITICISM

ESSAYS BY
ANNA ANZANI
GIOVANNI BAULE
VALERIA BUCCHETTI
DANIELA CALABI
ELENA CARATTI
FRANCESCA CASNATI
GABRIELE COLOMBO
TOMMASO ELLI
SILVIA D. FERRARIS
VALENTINA FERRERI
LAURA GALLUZZO
BEATRICE GOBBO
VALENTINA MANCHIA
FRANCESCA MATTIOLI
MICHELA ROSSI
MASSIMO SCHINCO
VIRGINIA TASSINARI
RAFFAELLA TROCCHIANESI
FRANCESCO VERGANI
CRISTINA VOTO

FrancoAngeli

Design della comunicazione

La collana Design della comunicazione nasce per far emergere la densità del tessuto disciplinare che caratterizza questa area del progetto e per dare visibilità alle riflessioni che la alimentano e che ne definiscono i settori, le specificità, le connessioni. Nel grande sviluppo della cultura mediatica la presenza del Design della comunicazione è sempre più trasversale e in continua espansione. La comunicazione richiede un sapere progettuale là dove la cultura si fa editoria, dove i sistemi di trasporto si informatizzano, dove il prodotto industriale e i servizi entrano in relazione con l'utente. Il Design della comunicazione è in azione nella grande distribuzione dove il consumatore incontra la merce, nella musica, nello sport, nello spettacolo, nell'immagine delle grandi manifestazioni come nella loro diffusione massmediale. La collana è un punto di convergenza in cui registrare riflessioni, studi, temi emergenti; è espressione delle diverse anime che compongono il mondo della comunicazione progettata e delle differenti componenti disciplinari a esso riconducibili. Oggetto di studio è la dimensione artefattuale, in tutti i versanti del progetto di comunicazione: grafica editoriale, editoria televisiva, audiovisiva e multimediale, immagine coordinata d'impresa, packaging e comunicazione del prodotto, progettazione dei caratteri tipografici, web design, information design, progettazione dell'audiovisivo e dei prodotti interattivi, dei servizi e dei sistemi di comunicazione complessa, quali social network e piattaforme collaborative.

Accanto alla dimensione applicativa, l'attenzione editoriale è rivolta anche alla riflessione teorico-critica, con particolare riguardo alle discipline semiotiche, sociologiche e massmediologiche che costituiscono un nucleo portante delle competenze del designer della comunicazione.

La collana si articola in due sezioni. I SAGGI accolgono contributi teorici dai diversi campi disciplinari intorno all'area di progetto, come un'esplorazione sui fondamenti della disciplina. Gli SNODI ospitano interventi di raccordo disciplinare con il Design della comunicazione.

FrancoAngeli 🔓

Il presente volume è pubblicato in open access, ossia il file dell'intero lavoro è liberamente scaricabile dalla piattaforma FrancoAngeli Open Acces (<http://bit.ly/francoangeli-oa>).

FrancoAngeli Open Access è la piattaforma per pubblicare articoli e monografie, rispettando gli standard etici e qualitativi e la messa a disposizione dei contenuti ad accesso aperto. Oltre a garantire il deposito nei maggiori archivi e repository internazionali OA, la sua integrazione con tutto il ricco catalogo di riviste e collane FrancoAngeli massimizza la visibilità, favorisce facilità di ricerca per l'utente e possibilità di impatto per l'autore.

Per saperne di più: <http://www.francoangeli.it/autori/21>.

Edited by Salvatore Zingale

Design Meets Alterity

Case Studies, Project Experiences, Communication Criticism

FrancoAngeli

Contents

Francesca Mattioli, Silvia D. Ferraris
Department of Design, *Politecnico di Milano*

Designing with the Other
Collaboration and Plurality as a Growth Potential for Designers

1. Introduction

Design requires a remarkable ability to collaborate with the Other. Indeed, designers are required to effectively manage relational and collaborative tasks while designing with plural others (e.g., Christensen et al. 2017; Gautam 2012; Lee 2016; McAra and Ross 2020; Murdoch-Kitt and Emans 2020; Voûte et al. 2020). Designers are in charge of finding solutions by combining different expertise. Hence, they must manage their interpersonal relationship with co-workers, informants, managers and technicians, to mention only a few. Therefore, collaborative skills may also be framed as hard skill for designers, making it relevant to reflect on acquiring these competencies in the design curriculum. Moreover, the Other often differs from the Self as societies are becoming increasingly interconnected. In this scenario, all the competencies related to the intercultural dimension are increasingly recognised as paramount goals of formal education and lifelong learning. According to Bennet (2015), a widespread consensus exists among researchers and international organisations that "global competence" is key for working and living with people from different cultures, as it is critical to achieving inclusion, essential for reducing ethnocentrism and bias among people, and central to build productive and positive relations both within one's own culture and internationally. Global competence is here intended as defined by the Organization for Economic Co-operation and Development (OECD):

[...] a multidimensional, life-long learning goal. Globally competent individuals can examine local, global and intercultural issues, understand and appreciate different perspectives and worldviews, interact successfully and respectfully with others, and take responsible action toward sustainability and collective well-being. (OECD 2019: 166)

This competence is identified under a myriad of different names (i.e., global competence, intercultural sensitivity, cross-cultural effectiveness, intercultural skills, cross-cultural adaptation, multicultural competence, cross-cultural relations, cultural proficiency, intercultural agility, cultural intelligence) and it is one of the top ten skills required from leaders and employees in the 21st century (Bennett 2015). Several international bodies have undertaken studies aimed at providing references for global competence development. Among others, in 2016 the European Commission published an influential document called Competences For Democratic Culture where a general conceptualisation of global competence is provided (Council of Europe 2016). This conceptualisation was developed through wide-ranging auditing of existing conceptual schemes that identified general competencies on the four dimensions. The output was then revised and finalised through the involvement of academic experts, education practitioners and policymakers, and was formalised with the publication of the *Reference Framework of Competences for Democratic Culture* (Council of Europe 2018). The competence is here framed into 20 competences divided into four groups: (i) values, (ii) attitudes, (iii) skills, and (iv) knowledge and critical understanding (tab. 1). The conceptualisation provided is intertwined with the UNESCO Sustainable Development Goals and was also adopted by OECD as the main reference to build the assessment strategy for acquiring global competencies for 15 years-old students in different countries (OECD 2019).

All of this suggested that designers in the 21st century must also be equipped to collaborate with others across cultures and beyond disciplinary boundaries. Indeed, working with plural others is fundamental for future practitioners, as design is increasingly recognised as a discipline that connects different knowledge domains, as a profession that facilitates the dialogue between different stakeholders. Hopefully, together with society, higher design education is becoming more and more plural, providing a safe setting for students to experience themselves in the interrelationship with the *plural Other* and become globally competent. Plurality is often experienced in academia and is already supported by internationalisation policies and the development of interdisciplinary pathways. Another relevant characteristic of design education is the learning-by-doing approach (Tracey and Boling 2014); students are engaged in educational projects through which they learn how to design artefacts. This approach belongs

Table 1. The framework of global competence proposed by the Council of Europe. Retrieved by "Reference Framework of Competences for Democratic Culture. Volume 1: Context, Concepts and Model" (2018).

Values	Attitudes	Skills	Knowledge and Critical Understanding
Valuing human dignity and human rights	Openness to cultural otherness and to other beliefs, world views and practices	Autonomous learning skills	Knowledge and critical understanding of the self
Valuing cultural diversity	Respect	Analytical and critical thinking skills	Knowledge and critical understanding of language and communication
Valuing democracy, justice, fairness, equality and the rule of law	Civic-mindedness	Skills of listening and observing	Knowledge and critical understanding of the world: politics, law, human rights, culture, cultures, religions, history, media, economies, environment, sustainability
	Responsibility	Empathy	
	Self-efficacy	Flexibility and adaptability	
	Tolerance of ambiguity	Linguistic, communicative and plurilingual skills	
		Co-operation skills	
		Conflict-resolution skills	

to the broader pedagogical framework of problem-based learning, where learning is conveyed by actively solving a problem that is initially posed by teachers (Sancassani et al. 2019; Savin-Baden and Howell Major 2004). Design has inherited this approach from education in architecture, art and craft, in which it was historically rooted in the design studio pedagogy.

Some proclaim that as a pedagogical method the design studio has no comparable model relative to its intensity and involvement [...]. Certainly, compared to typical classroom scenarios, studios are active sites where students are engaged intellectually and socially, shifting between analytic, synthetic, and evaluative models of thinking in different sets of activities (drawing, conversing, model-making). That these attributes characterise many studios is clear and attests the uniqueness of the studio as a vehicle for student education. (Dutton 1987: 16)

From Dutton's words it emerges that through studio pedagogy, students shift between numerous different thinking models, activities and types of interaction, while being engaged in solving a realistic design problem. Central to design education, the *learning-by-doing* is nowadays employed in different courses – workshops, ateliers, hackathons, etc. – that share a pedagogical framework which could be called "design-based learning", and defined as the one «that engages students in solving real-life design

problems while reflecting on the learning process» (Gómez Puente 2014: 4). It is particularly relevant that *design-based learning* often requires students to undertake collaborative activities to develop their projects (Barkley et al. 2014), such as group work, peer reviews with classmates or in-class discussions. These activities, which already exist in design education practices, could provide a valuable opportunity for students to relate with *plural others* in an educational context.

Various student-centred pedagogies can help students develop critical thinking regarding global issues, respectful communication, conflict management skills, perspective taking and adaptability. Group-based co-operative project work can improve reasoning and collaborative skills. It involves topics or theme-based tasks suitable for various levels and ages, in which goals and content are negotiated by all participants, and learners can create their own learning materials that they present and evaluate together (OECD 2019: 174).

Group-based courses are one of the most appropriate settings for students to develop global competencies, supporting the assumption that collaborations in design education could also provide an occasion for learning about and with the Other. Several authors argued that while there are teaching activities based on collaborative design-based learning, there is little research on understanding the phenomenon and the dynamics of learning design collaboratively in plural contexts (Poggenpohl 2004; Poggenpohl and Sato 2009; Wilson and Zamberlan 2015). Among others, Bulone (2016) showed how global competence is strictly related to design thinking regarding attitudes and skills. His research indeed showed that, in literature, a set of competencies that are typically connected to *design thinking* actually overlap with global competencies (Bulone 2016). Attitudes and skills such as empathy, open-mindedness or tolerance to ambiguity and unfamiliar situations are examples of competences that are widely acknowledged as fundamental for designers, and at the same time are deemed necessary to interact with others in culturally-plural contexts. We can therefore argue that design thinkers and globally competent people have much in common; hence, global attitudes and skills appear to be relevant outcomes of design education. We assume that students should improve and develop this set of soft skills as much as hard skills in their learning paths, and educators have a role in fostering this process.

2. Learning design with the Other: lights and shadows

Global competence may be therefore identified as an intended learning outcome of collaborative *design-based learning*. By proposing any form of collaborative activities in their courses, design educators create an opportunity for students to experience plurality and different perspectives, hence becoming culture-sensitive when it comes to collaborating with others. Nevertheless, thinking this is an automatic and obvious process can be misleading. For instance, imagine that we are at the beginning of a design studio in the first year of a master's degree course in design attended by students from different countries, from different bachelor courses, of different ages, with different work experience and the ability to speak English (which we assume to be the lingua franca in an academic context).

This example is very similar to the one we experience in our daily lives as teachers, which also helps us establish the context of this research. The task for the students during the semester is to collaboratively design an artefact from a project brief through group work. We expect that in the group, there will be different skills related to design, but since students are all adults, we take for granted that they will be able to work with others. However, this assumption needs to be analysed in light of the considered situated context, strongly characterised by cultural plurality.

First, how each individual acts while cooperating and relating to others is strongly influenced by one's own way of seeing the world, which is rooted in the *cultural contexts* in which the person knows or has lived. The conscious choice of the plural form when speaking of cultural contexts is to highlight that each individual's culture is shaped and constructed through the experience in multiple communities, from which the person learns "his/her way of doing things". The definition of culture is a complex and slippery path explored by philosophers, anthropologists, sociologists and scholars in numerous fields. The extent of possible definitions of culture is well illustrated in the work by anthropologists Kroeber and Kluckhohn (1952), who collected, organised and analysed 164 definitions of the word "culture" formulated by social scientists. Without looking for a definition, but rather with the intent of clarifying the general idea of culture emerged from their investigation, they expressed the outcome of their research with the following formula:

Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e, historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other as conditioning elements of further action. (Kroeber and Kluckhohn 1952: 181)

In the lines that follows, Kroeber and Kluckhohn foresee the individual variability of culture as one of the possible modifications that this formula could undergo by scholars. Individuals unconsciously pattern their behaviours through unique cultural forms and logic that cannot be explained through general principles since they relate to the culture-personality continuum (Kroeber and Kluckhohn 1952).

Going back to our groups of students' example, this means that each person has different ways of working with others and different perspectives. These perspectives not only influence the behaviours of the individual but also the way the person sees and judge others' behaviours. As we have just said, these differences exist both because of individual personality and culture. If students are not aware that through their life experiences, they have learned "their ways of doing things", they might assume that their way of acting is correct and that the others are misbehaving or acting strangely.

We are all limited by our cultural glasses (none of us views the real world), and our perceptions of the others serve to define ourselves. In order to grasp the *deeper meanings* of what seems a strange and alien way of "doing things", we are required to overcome our own negative perceptions of others, to change perspective and to interpret the action of others in their own terms. The trigger point is an unfamiliar or "strange" situation, and this means that the first step towards intercultural awareness lies in not letting such a situation pass unnoticed, as often happens (Mahadevan 2017).

Mahadevan's words resonate with the idea of *grasping the more profound meanings* underneath ways of acting because it once again brings us back to the design profession. In re-founding design through semantics, Krippendorf (2006) suggested that designers should be capable of making meaning emerge from their conversations with others, which is necessary as their

role is to make sense of things. The designer should therefore be able to question, listen and understand the way the Other understands.

Questions concerning meanings generate stories in which artifacts play the roles that their tellers give them, consistent with the experiences they have with them. While stories can never capture all the meanings that informants could bring into a narrative, especially their feelings and tacit understandings, conversations provide a window into the understanding that others have and that designers need to understand. The key to this understanding is unprejudicial listening, avoiding our own categories, and being careful in rearticulating these stories in our own terms (Krippendorff 2006: 55).

Unprejudicial listening of the Other underlies that an individual is aware of his/her own worldviews (or biases), is capable of suspending judgement, and devotes time to actively listening to others' narratives. Going back to the previous example, if it is assumed that students can collaborate with others, we might then overlook the collaborative aspects that regulate the design process. In this case, as teachers, we will not know how students work together, let alone whether they do so with cultural sensitivity.

When people are culturally-unaware while interacting across cultures, this may lead to some negative implications such as ethnocentrism, naïve realism, categorisation (Mahadevan 2017) and stereotyping. Ethnocentrism is described as one of the main barriers to healthy intercultural relations and as a means to consider one's own culture as the centre of everything and therefore the unit of measurement to evaluate others' cultures. Stereotypes and categorisations strictly relate to ethnocentrism and constitute an obstacle to developing awareness that one's own practice may be neither the only nor the best way of doing things (Bennett 2015).

Having this in mind, we can now observe our class groups and notice behaviours that denote a certain lack of sensitivity to plurality: for example, there may be students who tend to assume that their way of organising work and handling the design task is superior or somehow better than that of people with other cultural affiliations. Or it may be the case that a student considers some groupmates as not very capable just because they are less talkative or do not voice their opinion during group meetings. Both of these attitudes could be the result of judging the way others act from one's own cultural perspective, assuming that "the way I would act" is necessarily the best way.

Related to ethnocentrism, naïve realism refers to the inevitable initial assumption that subjective perceptions correspond to objective reality, and this applies to the way a person understands interactions with others, experiences with objects and events (Ross et al. 2010). If one takes for granted that the way he/she perceives the world is how the world actually is, once again stereotypes and categories based on cultural assumptions might arise (Mahadevan 2017). In our teaching experience sometimes we saw ways of relating among students that conceal these kinds of stereotypes and categorisations, and we wondered how it is possible to raise awareness in relationships among students who collaborate on design projects in culturally plural settings.

3. Supporting students in getting ready to collaborate with the Other: our experience

Even though the presence of culturally plural individuals is a potentially favourable condition, cultural plurality is not sufficient to ensure inclusion or awareness, and must necessarily be followed up in teaching practices (Spiro 2014). A first fundamental step is to help each student get prepared to collaborate and not take for granted that all students are equally competent in interrelating with the Other.

Few students come to higher education with well-developed team skills and to function in teams, they will need a range of skills and abilities that include interpersonal skills, active learning, team building and management, inquiry skills, conflict skills and presentation skills. (Savin-Baden and Howell Major 2004: 78)

As we have seen, if it is assumed that students are already trained or prepared to work in teams, it could happen that they will work in teams without having the right set of skills or tools, and possibly they will take for granted that "their own way of working" is right or is the best (which is even worse). Moreover, if the students experiencing plural collaborations are culturally-unaware, it is very likely that they will fall into ethnocentrism, naïve realism, categorisation and stereotyping. Taking as a primary example the context in which we teach, i.e., Product Design programmes at Politecnico di Milano, we observed that in the most of design-based learning courses, from the second year of the bachelor's programme until the final year of

the master's programme, students are engaged with teamwork. Even if this type of collaborative courses is very frequent – minimum one per semester – a structured training on teamwork and collaborative skills is still missing. This observation found confirmation from the field research we conducted with students in their final year of the Master in Design & Engineering (Mattioli and Ferraris 2021). The research consisted of structuring a tutorship path on teamwork (T4T) in the context for a group of 51 students along their entire master's programme between 2019 and 2021. The fundamental idea underpinning the T4T design was to provide tutorship for students engaged in teamwork in the Design Studios. At the end of the path, six students participated in a focus group to evaluate the proposed path, also sharing their general impressions about collaborations throughout their learning path. The group reported to have experienced a lack of preparation for collaboration in their academic career, despite always having to work in teams in design-based courses. Moreover, students reported that before the T4T, they perceived themselves as "highly experienced in teamwork" and, after participating in the path, students realised their limitations and that there was room for improvement. For instance, they recognised that they were not used to talk about teamwork or consider it as something that can be discussed, questioned and improved. The path helped them to make rules and roles explicit and provided structured moments for sharing their individual perceptions about teamwork and each teammate's contribution. Just starting to talk about teamwork as a part of their learning was considered by students an awareness-rising activity that helped them achieve better team results and improve teams' dynamics and communication (see Mattioli and Ferraris 2021).

«To start talking about teamwork, I think it is the most important part of the path», a student stated during the focus group (in Mattioli and Ferraris 2021).

In the previous paragraph we addressed the negative consequences of culturally-unaware interactions and suggested unprejudicial listening to the Other as their antidote. Our discussion here starts to intertwine even more closely the theme of global competences with that of collaborative competences. From students' words it emerged that the issue is possibly even more profound than being culturally-unaware, since they showed a lack of reflection and awareness of their abilities to relate with the Other

during collaborations. Or, at least, they affirmed that they had never been asked to reflect, talk or report about teamwork as it was not a crucial part of their learning. The results of the focus group showed that, with a little effort, design educators can radically change students' perceptions, raising awareness about collaborating and fostering a more sensitive relationship with the Other.

This result finds support in both collaborative learning and intercultural learning literature. Specifically, Barkley et al. (2014) suggested that orienting students prior and during collaborative learning activities helps them – especially those resistant to group work – to understand and appreciate the value of working with others. At the same time, educators can integrate practices to foster a student's sensitive attitude towards intercultural collaborations. The book *Intercultural Collaboration by Design* (2020) recently published by Kelly M. Murdoch-Kitt and Denielle J. Emans, appears to be particularly insightful. Being experienced design educators, the two authors proposed a series of exercises based on visual thinking to promote culture-sensitive collaborations among designers and design students. Most interestingly, this work highlighted how visual culture and design can powerfully support teachers in rising students' awareness on plurality and at the same time promote good practices to work with the Other, so that their activities mostly «involve creating, sharing, editing and interpreting different *Tangible Objects* as manifestations of visual thinking» (Murdoch-Kitt and Emans 2020: 5). The idea is that making objects and sharing them with others is a process that facilitates learning and understanding of the Other (Murdoch-Kitt and Emans 2020).

As design teachers, we also believe that making is a powerful way to build and share knowledge around ways to reshape our practices and to encourage students to become globally-competent while collaborating with the Other. For this reason, action research has been adopted as the preferred approach in carrying out this research. In education, action research is indeed pointed out as one of the most appropriate approaches to develop and evaluate teaching strategies, and for this reason it is widely used in education as a *practice-changing practice* (Efron and Ravid 2019; Kemmis et al. 2014; Stringer 2013), and is defined as «an inquiry conducted by educators in their own settings in order to advance their practice and improve their students' learning» (Efron and Ravid 2019). Action research indeed helps

building a body of knowledge to establish effective practices (Stringer 2013). Action research is important for the progress of teaching practices, and is also one of the paramount approaches of design research, where knowledge is often constructed starting from specific cases and solutions, moving from practice to theory, from specific to general (Buchanan 2001). Through action research, we developed three simple exercises informed by design and delivered with the support of several tangible objects. These tangible objects, together with the associated exercises, are presented and discussed herein as the result of the several iterations of action research conducted in past three years in our teaching activities at Politecnico di Milano. Our intention is twofold: on the one side, providing design teachers with some examples of activities aimed at developing awareness on collaboration and at supporting students in developing higher cultural-sensitivity towards the Other.

4. Three exercises for students to familiarise with the Other in plural collaborations

We herein present three simple exercises we designed and delivered to students to engage them in unprejudicial listening to the Other. All the activities share an overarching structure and some common characteristics. The structure envisages four recurring steps per each activity, namely (i) preparing the ground; (ii) self-reflecting and representing own perspective; (iii) sharing with and listening to others; and (iv) acting together. After acting together, the next activity starts, again with a reflection on the action (Schön 1987). Along with commenting these steps, in the following lines we will also provide an overview of the shared characteristics of the activities, which were designed following some principles identified in our previous work (Mattioli et al. 2018).

(i) The first step – *preparing the ground* – is crucial to inform students and orient them on the aims of the activity and to explain how it works. This information is delivered both in oral and written form, to allow all the students to go back to the introduction and instructions and to revise them: this ensures that everyone will feel safe and included, despite their different proficiency levels. In addition, activities and therefore instructions are designed to be easy and simple, once again to allow everyone to participate

with no high cognitive load, intending cognitive load as the total amount of mental effort being used to accomplish a certain task. Students should be relaxed while doing the exercises, since an unstressed atmosphere among participants may foster the process of building mutual understanding (Mattioli et al. 2018).

(ii) In the second step, all and each student is provided with adequate time to reflect on his/her own perception and feelings and to represent them on a shared canvas. These canvases have a given format and each student fills them with contents related to their personal experiences, perspectives and perceptions. This step is crucial for each students to devote time to self-reflection and to represent what is felt or perceived, deciding what and how they want to share with others and leaving time to everyone to pick the right words and write them down. Storytelling is very important as it leads to building deep connections between participants, and talks and gestures are essential to build shared understanding (Wardak 2016). Assuming English as lingua franca, language is a critical issue in plural collaborations since the team communicates using a certain language with different proficiency levels, and this can lead to issues of power and unbalances among team members (Mahadevan 2017). Moreover, using English as lingua franca does not simply mean that all people involved in the conversation speak English, as everyone speaks English according to his/her own cultural assumptions. It is essential that both non-native speakers and native speakers are given the time and help they need to express their feelings in an adequate and comprehensive way. Since the objective is to build mutual understanding, it is important to give team members time to think about words to use and let them explain "what they mean with those words" to communicate more effectively.

(iii) The third step of the overarching activities' structure requires students to share their own perspective, represented on the canvas, with others, and also to listen to t he others while they share their own. This step is the most crucial, because it is when the students are actively engaged in listening to the Other. The information and guidelines provided in the preparing the ground step can help them to listen with a non-judgemental attitude and try to put themselves in others' shoes. The standard format

has some important consequences on this phase, since everybody knows the canvas, which leads to better understanding of others during the sharing phase. A standard layout also promote equity of perspectives, since each individual is given the same space as the others to express his/her subjective ideas: limits will be set for more talkative students in sharing their perspectives just as much as less talkative ones will be pushed to express theirs. Moreover, the way each student represents his/her viewpoint reveals differences and similarities, showing how different people can create connections and have multiple worldviews.

(iv) Finally, students are requested to take action with others and therefore engage in collaborative activities or to identify solutions to change their collaboration for the better. Devoting time to making sense together of that which has emerged from sharing is important for students, to collaboratively translate their ideas, concerns and findings into appropriate and responsible individual or collaborative actions aimed at improving their conditions (Center for Global Education 2013).

To summarise, the main characteristics of each exercise are: (a) using a standard format to be filled with personal perspectives; (b) providing time to think, find words, communicate effectively; (c) providing time to listen and to talk about individual perspectives; (d) providing time to discuss, to make sense together and improve actions; and (e) giving easy, simple exercises and instructions.

5. First activity: *Introduce Yourself!*
Reflecting on the self and knowing others
When in a design-based learning course a plural class is newly formed and a collaborative activity is about to start, it may be useful to create a formal space for students to introduce themselves to each other before asking them to start engaging with the collaborative making. The assumption underpinning this first activity is that everyone is different, the way each individual is and behaves is shaped by his/her different experiences. To reflect on who we are and which our skills are, is a paramount step for getting ready to relate to others while accomplishing a certain task. Seeing that others are similar or different from ourselves supports the understanding

GIVEN NAME & SURNAME	NICKNAME	HOMETOWN & COUNTRY	LANGUAGES SPOKEN
Qais Hassan Suhail	Qais	Karachi, Pakistan	English (Fluent) Urdu (Native)

OTHER PLACES WHERE I LIVED	MY MOTTO	MY ACADEMIC PATH (INSTITUTION & PROGRAMME)
Islamabad, Pakistan	*It's going to happen, because I am going to make it happen. – Harvey Specter*	Bachelor's in Mechanical Engineering (Gold Medallist) NUST, Pakistan 1 year experience as a Maintenance Engineer and +6 months as a Planning & Projects Engineer

STRENGTHS I BRING TO THE TEAM (3-5 SOFT & HARD SKILLS)	WEAKNESSES I WOULD LIKE TO IMPROVE (3-5 SOFT & HARD SKILLS)
Team Management and Leadership Skills	Research (get too much involved in intricacies)
Technical drawings & 3D Models	Rendering (knows only SolidWorks renderer)
Mechanical Design and analysis knowledge	Believing in other's work (this is horrible I know :p)
Presentation & Public Speaking Skills	
Keeping the team on track	

Figure 1. *Introduce Yourself!* The canvas.

that different ways of being and different perspectives exist. We thus conceived this first icebreaking activity, *Introduce Yourself!*, which is aimed at having every student reflect on him/herself and getting to know the other students, and is also aimed at helping disclose the complexity that each person embodies and to support the whole class (both students and professors) in the grouping phase.

Preparing the ground
First, we make explicit to students that they will work in groups and that collaboration will provide them an important opportunity to develop design-related hard skills and soft skills. While introducing the exercise, we list several examples of both types of skills, also pointing out how both hard and soft skills are highly relevant for designers.

Self-reflecting and representing one's own perspective
Each student fills a canvas for this activity (fig. 1) that contains different sections for students to introduce themselves. In the upper part, the student enters a series of personal information to share with classmates as a support to describing his/her personal background (i.e., name and surname, nickname, origin, language spoken), experiences (i.e., places where

he/she has lived, academic path) and worldviews (i.e., motto). In the lower part, the students are asked to present themselves by building on personal strengths and things they would like to improve in collaborating with others on design tasks. The canvas is provided to students in the standard format shown in the figure.

Sharing with and listening to others
During the class, each student is given time to introduce him/herself by explaining his/her canvas to others. Some people might prefer to just read that which they wrote on the canvas; others add comments and additional explanations while presenting themselves to others. They have the chance to present their skills, pointing out the strengths and competences they would like to improve. While a student speaks, the others listen to him/her and identify the classmates they would like to work with, also by considering who are the ones with skills complementary to theirs.

Acting together
In our classes, in some cases we leave students free to form groups, while in others case it is us, the teachers, who decide the groups (Mattioli et al. 2020). The activity supports both grouping methods, since it helps both students and educators to better known each other. When it is us, the professors, who form the group, before doing so we usually give each student the opportunity to freely indicate the classmates he/she considers complementary to him/herself based on student self introductions.

6. Second activity: *Team Agreement*
to share expectations, agree on rules and roles
Once the groups are formed, we propose this activity for team members to share expectation and agree on rules and roles in the team. Group agreements and contracts are widely used prior to collaborations to make sure all team members are on the same page and that they all approve the way work will be organised (Barkley et al. 2014). Accordingly, we designed the Team Agreement activity to support newly formed working groups and guide them in make explicit that which each member offers and asks to the group, but also to collectively decide the rules to collaborate with each other.

Figure 2. Example of how students list their personal offers and expectations.

Preparing the ground

We first explain that is important to make personal expectations explicit, since it helps everyone to share what each one believes he/she can offer to the group (i.e., hard and soft skills, attitude, background knowledge), but also what he/she expects from others. Then, we clarify that agreeing on roles and rules in the team helps each team member not take things for granted. By creating together and signing the agreement, each student becomes responsible for respecting and demand respect for the agreed rules. The Team Agreement becomes the foundational document of the collaboration that is about to start.

Self-reflecting and representing one's own perspective

In the very first part, each student is given time to reflect and write his/her personal offers and expectations, as in the example (fig. 2).

Sharing with and listening to others

Students start creating the Team Agreement (fig. 3) by sharing with their teammates' offers and expectations and writing them on a sheet. We suggest students not to be afraid to ask explanations to others when something is unclear, to make sure nothing remains implicit or unsaid.

Figure 3. On the left is the scheme provided to create the team agreement, on the right is an example of team agreement created by a group of students.

Acting together

This activity is strongly linked to that of acting together, since the team literally creates the Team Agreement (fig. 3). As a first step, each team decides its rules by answering the following guiding questions:

– How will we communicate?
– How will we share documents and materials (update, naming files, sharing platform)?
– Where and when will we meet?
– How will we make decisions?
– How will we divide the work to do?
– How and when will we discuss how is it going?
– How will we deal with issues or arguments?

These are rules we expect to be decided by students, but we leave them free to also add other rules. We also provide them with suggestions on possible tools to share files (i.e., Google Drive, Microsoft One Drive, Drop-

box), organise files (i.e., deciding a shared method to collect documents in folders or to name them), organise communication through a shared platform (i.e., Slack, Webex Teams, Microsoft Teams) and organise tasks (i.e., Miro, Trello, Slack).

Finally, students have to agree on roles in the team, and this gives everyone a purpose for participating and ensure that the various aspects of the design task are addressed (Barkley et al. 2014). Rather than dividing roles based on the various aspects of the design, we suggest students to assign roles related to the organisational aspects, as the six roles suggested by Mills and Cottel (in Barkley et al. 2014), namely the *facilitator*, the *recorder*, the *reporter*, the *timekeeper*, the *materials manager*, the *wildcard* (tab. 2). Each team is free to decide the roles to assign and even to not assign some of. The roles are decided in the beginning and student rotate in them throughout the development of the design task. After deciding the roles, all the group members sign the Team Agreement: now the team is ready to start the collaboration.

Table 2. Six Common Group Roles (Mills e Cottel 1998 in Barkley et al. 2014: 86).

|	
Facilitator	Moderates all team discussion, keeping the group on task for each assignment and ensuring that everybody assumes their share of the work. Facilitators strive to make sure that all group members have the opportunity to learn, to participate, and to earn the respect of other group members.
Recorder	Records any assigned team activities. Recorders take notes summarising discussion, keep all necessary records (including data sheets such as attendance and homework check-offs), and complete worksheets or written assignments for submission to the instructor.
Reporter	Serves as group spokesperson and orally summarises the group's activities or conclusions. Reporters also assist the recorder with the preparation of reports and worksheets.
Timekeeper	Keeps the group aware of time constrains, works with the facilitator to keep the group on task, and can also assume a role of any mussing group member. The timekeeper is also responsible for any set-up and for ensuring that the team's work area is in good condition when the session ends.
Materials manager	[...] Materials managers ensure that all relevant class materials are in the folder at the end of the class session.
Wild card	Assumes the role of any missing member or fills in however needed.
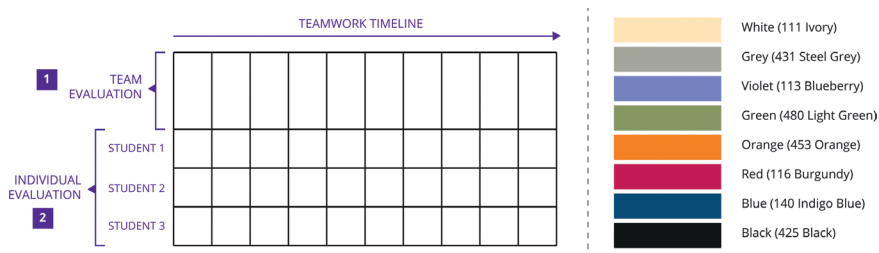
Figure 4. Teamwork Colour Matrix and the colour palette selected (Mattioli and Calvo Ivanovic 2021).

## 7. Third activity: Teamwork Colour Matrix to evaluate the making and improving together

After working together for a period of time, we propose a peer and group self-evaluation, aimed at helping students and teams to improve their collaboration. These type of evaluations help students to reflect on their way to collaborate and, if needed, help them to speak about issues and collectively find solutions (Mattioli and Ferraris 2019). This activity was designed with the help of a colour researcher and presented in previous publications (Calvo Ivanovic and Mattioli 2021; Mattioli and Calvo Ivanovic 2021).

Preparing the ground
We explain that the activity is aimed at:
– reflecting and making explicit personal thoughts and feelings about teamwork;
– identifying what works well and what can be improved in teamwork and interactions;
– providing a shared tool that gives the space to each individual to express his/her own experience;
– verifying the Team Agreement and updating it in the light of one's own experience;
– improving teamwork in the next tasks.

All students are reminded to be constructive and assertive in providing feedback, and to actively listen to others. We then introduce the Teamwork Colour Matrix (TCM), consisting of a blank orthogonal grid designed to be the canvas to be filled with one or more colours from a predefined 8-colours

---
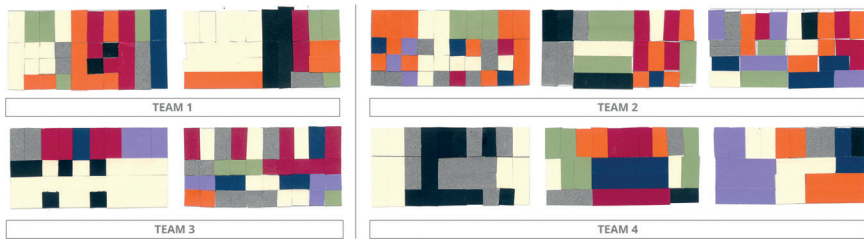
Figure 5. Example of Teamwork Colour Matrix created by students (Calvo Ivanovic and Mattioli 2021).

palette (Calvo Ivanovic and Mattioli 2021). The diversity of the chromatic palette (i.e., hue, lightness, saturation) was designed to provide a variety of colours to visually represent different moods, moments or meanings when representing the teamwork experience. Within the TCM, the teamwork experience can be divided into the different moments on the horizontal axis (fig. 4, teamwork timeline) which the students freely decide to associate with one of the colours. TCM allows students to visually represent each part of the process.

Self-reflecting and representing one's own perspective
As a first step, students are required to individually evaluate the collective experience of teamwork (fig. 4, team evaluation) by colouring the upper row of the grid. After this, they are asked to produce a brief written description of the visual representation. Then, each student colours the lower rows, evaluating his/her individual performance as well as the performance of each team member (fig. 4, individual evaluation) by colouring the upper row of the grid. After this, they are asked to produce a brief written description of the visual representation. Then, each student colours the lower rows, evaluating his/her individual performance as well as the performance of each team member (fig. 5).

Sharing with and listening to others
Once every team member has created his/her TCM, the team gathers and the sharing phase starts. Students are provided with simple rules to follow in this phase:
– one speaks, the others listen without interrupting;
– the one who speaks starts from his/her own needs and feelings;

- evaluate the overall teamwork experience by presenting one's own TCM;
- when everybody has spoken, students can build together a shared understanding of their teamwork.

At this stage we also explicitly state that we are available for support if the groups have problems to which they cannot find a solution.

Acting together
When the team finishes the sharing phase it is ready to read again the initial Team Agreement and decide possible updates in the light of that which has been experienced. The group is free to change rules and rotate in roles.

8. Conclusion
Learning design with awareness and sensitivity to others: a first milestone along the way

These activities are an example of how design educators can easily begin a conversation with students on the themes of plurality and collaboration with the Other. The results achieved so far show that these kinds of courses can help develop greater awareness in students and develop their skills in relating to the Other. Especially, in design-based learning courses where students are asked to collaborate on a design task, a few simple tricks can support inclusive attitudes and help everyone to understand that different visions can co-exist and that, above all, from this plurality one can learn to become a better designer. Clearly, we do not believe that these three activities alone can be an exhaustive answer to such a broad and complex issue. The research we have carried out so far is only a step towards a didactic approach that considers the relationship with the Other as a critical aspect not to be taken for granted. In this sense, we hope that the discussion about the structure and characteristics of the activities presented can support other educators as design guidelines for educational activities aimed at fostering the development of global and collaborative competences.

References

Barkley, Elizabeth F.; Major, Claire H.; Cross, K. Patricia
2014   *Collaborative Learning Techniques: A Handbook for College Faculty*, San Francisco, Jossey-Bass Publishers.

Bennett, Janet M. (ed.)
2015   *The SAGE Encyclopedia of Intercultural Competence*, Thousand Oaks, CA, Sage Publications.

Buchanan, Richard
2001   "Design Research and the New Learning", *Design Issues*, 17, 4, 5-23.

Bulone, Philip A.
2016   *Reflections on Global Competence by Four Design Educators*, Tampa, FL, University of South Florida.

Calvo Ivanovic, Ingrid; Mattioli, Francesca
2021   "A colour is worth a thousand words! A colour-based tool to foster communication in culturally-plural teams", in Griber, Y.A.; and Schindler, V.M. (eds.), *The International Scientific Conference of the Color Society of Russia: Selected papers*, Smolensk, Smolensk State University Press, 25-130.

Center for Global Education
2013   *Global Leadership: 12th Grade*, in «Global Leadership», Asia Society.

Christensen, Bo T.; Ball, Linden J.; Halskov, Kim (eds.)
2017   *Analysing Design Thinking: Studies of Cross-Cultural Co-Creation*, London, CRC Press.

Council of Europe
2016   *Competences For Democratic Culture. Living Together as Equals in Culturally Diverse Democratic Societies*, Council of Europe, <http://book.coe.int>, online on 4 January 2024.
2018   *Reference Framework of Competences for Democratic Culture*, Volume 1: Context, Concepts and Model (Vol. 1), Council of Europe Publishing.

Dutton, Thomas A.
1987   "Design and studio pedagogy", *Journal of Architectural Education*, 41, 1, 16-25.

Efron, Sara Efrat; Ravid, Ruth
2019   *Action Research in Education. A Practical Guide*, New York, Guilford Publication.

Gautam, Vivek
2012   *Influence of Cultural Characteristics on Designers' Approaches – An Empirical Study*, Doctoral Thesis, Technische Universität Berlin.

Gómez Puente, Sonia María
2014   *Design-based learning: exploring an educational approach for engineering education*, Eindhoven, Technische Universiteit Eindhoven.

Kemmis, Stephen; McTaggart, Robin; Nixon, Rhonda
2014   "A New View of Research: Research Within Practice Traditions", in Id. (eds.), *The Action Research Planner: Doing Critical Participatory Action Research*, Singapore, Springer.

Krippendorff, Klaus
2006   *The Semantic Turn. A new Foundation for Design*, Boca Raton, CRC/Taylor & Francis.

Kroeber, Alfred Louis; Kluckhohn, Clyde
1952   "Culture: a critical review of concepts and definitions", *Papers. Peabody Museum of Archaeology & Ethnology, Harvard University*, 47, 1, 223.

Lee, Dong Yeong
2016   *Interaction of Cultures through Design' Cross-Cultural Design* (CCD) *Learning Model: The development and implementation of CCD design education in South Korean higher Education*, Doctoral Thesis, Goldsmiths, University of London.

Mahadevan, Jasmin
2017   *A Very Short, Fairly Interesting and Reasonably Cheap Book about Cross-Cultural Management*, Thousand Oaks, CA, Sage Publications.

Mattioli, Francesca; Calvo Ivanovic, Ingrid
2021   "Have You Felt Blue or Red? A Colour-Based Tool for Culturally Plural Teams", in Grierson, H.; Bohemia, E.; and Buck, L. (eds.), *DS 110: Proceedings of the 23rd International Conference on Engineering and Product Design Education (E&PDE 2021), VIA Design, VIA University in Herning, Denmark*, 9th-10th September 2021.

Mattioli, Francesca; Ferraris, Silvia
2019   "Self-evaluation and peer evaluation tool for design and engineering teams: experiment conducted in a design studio", *Proceedings of the 21st International Conference on Engineering and Product Design Education*, 364-369.
2021   "Never Take Teamwork for Granted! A Tutorship Experience on Soft-Skills", in Grierson, H.; Bohemia, E.; and Buck, L. (eds.), *DS 110: Proceedings of the 23rd International Conference on Engineering and Product Design Education (E&PDE 2021), VIA Design, VIA University in Herning, Denmark*, 9th-10th September 2021.

Mattioli, Francesca; Ferraris, Silvia; Ferraro, Venere; Rampino, Lucia
2018   "Mybias: A web-based Tool to Overcome Designers' Biases in Heterogeneous Design Teams", in Storni, C.; Leahy, K.; McMahon, M.; Lloyd, P.; and Bohemia, E. (eds.), *Design as a catalyst for change – DRS International Conference 2018*, 25-28 June, Limerick, Ireland.

Mattioli, Francesca; Ferraris, Silvia; Rampino, Lucia
2020   "Diverse together: learn by collaborating", *DIID. Disegno industriale industrial design*, 71/2020, 96-103.

McAra, Marianne; Ross, Kirsty
2020   "Expanding Studio Boundaries: Navigating Tensions in Multidisciplinary Collaboration within and beyond the Higher Education Design Studio", *International Journal of Art and Design Education*, 39, 2.

Murdoch-Kitt, Kelly M.; Emans, Denielle J.
2020   *Intercultural Collaboration by Design. Drawing from Differences, Distances, and Disciplines Through Visual Thinking*, Abingdon, New York, Routledge.

OECD (OCSE)
2019   "PISA 2018 Global Competence Framework", in *PISA 2018 Assessment and Analytical Framework*, OECD Publishing, 165-215.

Poggenpohl, Sharon H.
2004   "Practicing Collaboration in Design", *Visible Language*, 38, 2, 138-157.

Poggenpohl, Sharon H.; Sato, Keiichi (eds.)
2009   *Design Integrations. Research and Collaboration*, Bristol, Intellect Ltd.

Ross, Lee; Lepper, Mark; Ward, Andrew
2010   "History of Social Psychology. Insights, Challenges, and Contributions to Theory and Application", in Fiske, S.T.; Gilbert, D.T.; and Lindzey, G. (eds.), *Handbook of social psychology*, John Wiley & Sons, Inc., 3-50.

Sancassani, Susanna; Brambilla, Federica; Casiraghi, Daniela; Marenghi, Paolo
2019   *Progettare l'innovazione didattica*, Milano, Pearson.

Savin-Baden, Maggi; Howell Major, Claire
2004   *Foundations of Problem-based Learning*, Maidenhead, Open University Press.

Schön, Donald A.
1987   *Educating the Reflective Practitioner. Toward a New Design for Teaching and Learning in the Professions*, San Francisco, Jossey-Bass Publishers.

Spiro, Jane
2014   "Learning Interconnectedness. Internationalisation through Engagement with One Another", *Higher Education Quarterly*, 68, 1, 65-84.

Stringer, Ernest T.

2013   *Action research*, Thousand Oaks, CA, Sage Publications.

Tracey, Monica W.; Boling, Elizabeth

2014   "Preparing instructional designers: Traditional and emerging perspectives", in Spector, J.M.; Merrill, M.D.; Elen, J.; and Bishop, M.J. (eds.), *Handbook of Research on Educational Communications and Technology: Fourth Edition*, New York, Springer Science+Business Media.

Voûte, Ena; Stappers, Pieter J.; Giaccardi, Elisa; Mooij, Sylvia; van Boeijen, Annemiek

2020   "Innovating a Large Design Education Program at a University of Technology'", *She Ji*, 6, 1, 50-66.

Wardak, Dewa

2016   "Gestures Orchestrating the Multimodal Development of Ideas in Educational Design Team Meetings", *Design Studies*, 47, November, 1-22.

Wilson, Stephanie; Zamberlan, Lisa

2015   "Design for an unknown future: Amplified roles for collaboration, new design knowledge, and creativity", *Design Issues*, 31, 2, 3-15.

The **QUESTION OF ALTERITY** has become fundamental to understanding contemporary societies, which are increasingly multicultural, multi-ethnic and intersectional. That which is **OTHER** poses questions that one is not used to answering, poses itself as a term of contradiction, questioning established certainties and beliefs.

Alterity is a field yet to be explored, especially when one wants to move from theoretical reflection, inevitable and necessary, to transformative praxis.

Reflection on alterity leads to the **ABANDONMENT OF ALL FORMS OF CENTRALISM**. Acceptance of a culture based on the recognition of alterity and mutual responsibility requires overcoming anthropocentrism and androcentrism, but also Eurocentrism and logocentrism, that is, the domination of some forms of communication and signification over all others. Today, it is legitimate to think that the design dimension can also undertake research paths that highlight **THE NEED TO RECOGNISE THE OTHER**: from migratory flows to gender cultures, from social fragility to mental health, from cultural distances to the difficulties of social integration, etc. This is the direction in which the essays in this volume are heading. Design culture has the right tools to promote innovative and open visions of relations between people, peoples, and languages.

SALVATORE ZINGALE

Salvatore Zingale is Associate Professor at the Department of Design of the Politecnico di Milano and teaches Design Semiotics at the School of Design. He is particularly interested in the cognitive and inventive processes of design activity and dialogicity in cultural interactions.

On the relationship between design and alterity, he has edited *Design e alterità. Conoscere l'Altro, pensare il Possibile* (FrancoAngeli, 2022) and the volume *Relazioni dialogiche. Un'indagine sulla comunicazione e la progettualità* (FrancoAngeli, 2023).