Article

# What Is Inclusive Education? Voices and Views From a Carpentry Classroom Workshop

Rafel Argemí-Baldich *, Paulo Padilla-Petry, and María Inés Massot-Lafón

Department of Research Methods and Diagnosis in Education, University of Barcelona, Spain

* Corresponding author (rargemba7@alumnes.ub.edu)

**Abstract**
Theories of inclusive education usually assume the schooling of all students within the same educational contexts, focusing on presence, participation, and success. However, the current implementation of inclusive education in regular schools has encountered resistance and difficulties that have led to special education schools assuming a complementary role in ensuring that all students' educational needs are met. In this context, the limited scope of inclusive education theories is evident. Therefore, the present case study addresses the need to develop new theories to adapt inclusive practices to a carpentry classroom workshop. Our research took place in a carpentry classroom workshop in a Catalan special education school and aimed to identify the various meanings that participants (students and teachers) give to inclusive education, especially regarding presence, participation, success, and relationships between students. The results indicate that, while literature on inclusive education is divergent, literature on the Sloyd methodology converges. In conclusion, we invite readers to consider the need for more research on inclusive education in a given context and in relation to the Sloyd educational methodology.

**Keywords**
carpentry students; educational needs; inclusive education; Sloyd; social inclusion; special education school

## 1. Introduction

Since 2015, the sustainable development goals (SDGs) have focused on ensuring a sustainable, inclusive, and resilient future for the planet and its people (United Nations, 2017) based on economic growth, social inclusion, and environmental protection. Social inclusion during childhood and adolescence is promoted by inclusive education (Razer et al., 2013), assured through national and international treaties and legislation such as the SDGs, which advocate for an inclusive and equitable quality education. However, and in the face of the difficulties and reluctance that implementing inclusive education in mainstream educational institutions encounters globally (Florian, 2019; Paliokosta & Blandford, 2010; Verdugo &

Rodríguez, 2012), special education schools play a complementary role in ensuring that all students have access to good quality education (Shaw, 2017).

In Catalonia, special education schools play a complementary role to inclusive education. Thus, given the deficiencies in the implementation of inclusive education, particularly in secondary education (CERMI, 2021; Síndic de Greuges, 2021), special education schools are responsible for ensuring meaningful inclusion. They do so by enabling the schooling of students who do not require high-intensity media but who have encountered impediments, rejection, or reluctance in mainstream schools. Therefore, the Catalan special education schools are committed to decidedly inclusive methodologies, such as educational workshops based on experiential

learning (Bandura, 1977; Dewey, 1938; Gibbs, 1988; Kolb, 2015).

This article presents the results of a case study conducted in a carpentry classroom workshop of a special education school. This case study aimed to identify the various signifiers and perspectives regarding inclusive education, analysing the following four categories: presence, participation, success, and relationships between students. This work contributes to developing the theory of inclusive education (Nilholm, 2021). To this end, the article is organised as follows: A review of the literature is first presented on inclusive education and the difficulties of its implementation and the Sloyd educational methodology. This is followed by an explanation of the research methods and data, and the presentation of results, discussion, and conclusions.

## 2. Inclusive Education: Limits and Challenges

### 2.1. Boundaries of Inclusive Education, Presence, Participation, and Success in Special Education Schools

Razer et al. (2013) argue that one of the main promoters of social inclusion during childhood and adolescence is inclusive education, which assumes that all students, regardless of their status (e.g., race, gender, language, ability, socio-economic status), should be schooled in the same educational contexts (Plaisance et al., 2007; Slee, 2018). Such education aims to eliminate exclusion and all barriers to access, whether physical, educational, psychological, or social (Ainscow et al., 2006; Booth, 2011; Plaisance et al., 2007), with a focus on presence, participation, and success in special education schools (Ainscow et al., 2006; Slee, 2018).

First, when talking about presence, we refer to the place where students are educated (Ainscow & Messiou, 2018), although, as Bossaert et al. (2013) and Vyrastekova (2021) argue, mere physical presence does not guarantee inclusion; rather, both peer acceptance, and the feelings and impressions that presence itself generates in a student must also be considered. Second, participation relates to the quality of experiences, whether through social interaction with peers, peer acceptance, increased opportunities for contact, or the perception of being accepted (Ainscow & Messiou, 2018; Juvonen et al., 2019; Koster et al., 2009). Third, success is understood in a polysemic way, and not only in relation to test results but to social interactions as well, to intergroup friendships, perceived acceptance, or satisfaction within the school environment (Bossaert et al., 2013; Juvonen et al., 2019; Vyrastekova, 2021). Likewise, the relationship between students—understood as peer acceptance or interaction, friendships between group members (Bossaert et al., 2013), or the subjective perception of the feeling of relatedness (Le Boutillier & Croucher, 2010)—has been revealed as one of the most important elements for ensuring students' presence, participation, and success in inclusive education.

Nevertheless, the current application of inclusive education in schools has been met with criticism. Various authors (Amor et al., 2018; Armstrong et al., 2011; Qvortrup & Qvortrup, 2018; Slee, 2011) claim that it tends to be relegated only to an aesthetic subversion, focused on changing the language and the number of students, rather than changing educational practices. In line with this, other studies have found that the model of inclusive education applied in regular schools often leads to school failure (Juvonen et al., 2019; Zablocki & Krezmien, 2013), isolation, marginalisation (Juvonen et al., 2019; Pijl & Frostad, 2010), or bullying (Black, 2014) of students. Thus, inclusive education often encounters serious difficulties in its implementation. In an educational context that increasingly values the principles of academic excellence, choice, and competence (Florian, 2019; Laval, 2004; Paliokosta & Blandford, 2010), inclusion is perceived as a burden (Florian, 2019; Norwich, 2014; Shaw, 2017). In addition, there is strong resistance from the educational community, including teachers, families, and peers (Paliokosta & Blandford, 2010; Verdugo & Rodríguez, 2012).

In sum, in the current climate of inclusive education, regular schools have difficulties in incorporating variability, inequality, or difference, and the notion that regular education is the ideal place for the educational development of all students (Florian, 2019) does not always hold true. However, to ensure that the educational, emotional, social, and personal needs of all students are met, special education schools play a complementary role (Black, 2014; Shaw, 2017), whether in terms of personal experience (Shaw, 2017) or the sense of belonging (Haug, 2017; Hornby, 2015), rather than educational achievement (Parsons et al., 2009).

### 2.2. The Carpentry Classroom Workshop as a Tool for Inclusive Education

Following previous works on the importance of presence, participation, and success, as well as the scope of the subjective perception of these areas, particularly in relation to the construction of inclusive education, and ultimately of social inclusion itself, the methodology of the carpentry classroom workshop—inspired by the Sloyd educational methodology—is presented as a tool for educational and social inclusion.

Sloyd has its origins in Uno Cygnaeus, the father of Finnish public education, who, influenced by the pedagogical principles of Pesatalozzi and Fröbel (Ólafsson & Thorsteinsson, 2009), introduced Sloyd to Finnish schools in 1866, based on woodworking (Autio et al., 2012). At the same time as Sloyd was being introduced in Finnish schools, the Swedish pedagogue Otto Salomon, with the support of Cygnaeus (Ólafsson & Thorsteinsson, 2012) developed, disseminated, and expanded woodworking based on the Sloyd system, initially from the teacher training school in Nääs (Sweden), which became an international centre for teacher training in this

pedagogical system. From the 1880s onwards, Sloyd was introduced into the various Scandinavian education systems (Thorsteinsson & Ólafsson, 2014).

Sloyd is an educational methodology developed in Scandinavia that focuses on the overall development of children, based on learning technical skills for the manual manufacture of objects in wood, metal, textile or sewing, enhancing the creativity, imagination, or expression of thoughts or emotions at work (Borg, 2006; Thorsteinsson & Ólafsson, 2014). Sloyd can clearly be distinguished from the manual instruction of craftsmen (Salomon, 1892) and openly advocates the central idea of experiential learning. This approach was initially developed by Dewey (1938) and refined with the contributions of authors such as Bandura (1977) with the theory of social learning, Gibbs (1988) with the theory of the reflective circle, and Kolb (2015) with the theory of experiential learning. In short, it is an idea, thought, and/or previous experience driven by the task/creation where a result is achieved through the evaluation of the actions performed.

Although Sloyd is currently more widespread in the Nordic context, where it promotes both the integral development and independence of learners, similar educational experiences still exist in other educational contexts. For instance, in New Zealand, during early childhood education, woodcraft is considered to help children develop expression, creativity, confidence, or bodily self-control. In the United States, schools consider that woodcraft builds character and a sense of purpose in students' development. Finally, in Scotland, Sloyd is used to foster vocations in STEM (Moorhouse, 2020). However, in Scandinavian countries, there is some misunderstanding of Sloyd, either on the part of parents, who consider that it would be more useful to allocate these hours to learning subjects considered useful, such as English or mathematics (Borg, 2006), or on the part of schools, which sometimes reduce or share Sloyd hours with other subjects (Ólafsson & Jóelsdóttir, 2018; Perlic, 2019). These misunderstandings are qualified by teachers who emphasise that pupils like it very much and are highly motivated to participate in it, and also by pupils who state that the subject is important, fun, attractive, practical, useful for life, and forces them to work with their hands while being creative. Therefore, they perceive it as something different from other subjects taught at school. However, they criticise it on the grounds of being unable to practise at home, the short time devoted to the subject at school, the long projects, or the dust in the classroom (Danmarks Evalueringsinstitut, 2019; Kjosavik et al., 2003; Skolverket, 2015).

From this perspective, one might understand a woodworking classroom workshop as a learning environment inspired by the educational methodology of Sloyd, where wooden objects are created manually, driven by the inspiration of learning by doing (Bandura, 1977; Dewey, 1938; Gibbs, 1988; Kolb, 2015), experience and reflection, and based on the fundamental principles of (a) student-centred activity and (b) encouraging teachers and students to develop the activity jointly and communicatively.

In the Catalan educational context, the implementation of inclusive education practices has encountered difficulties and reluctance. Currently, special education schools play an additional role in ensuring that pupils' educational needs are met, for instance, through the implementation of the carpentry classroom workshop methodology. Likewise, and following Nilholm (2021), it is necessary to develop new theories on inclusive education that go beyond the existing literature. A case study is particularly suitable for this purpose since it allows for collating views and expressions, giving a voice to the protagonists of inclusive education practices. Thus, the present case study—focused on a carpentry classroom workshop—seeks to show how all the agents involved conceptualise the various categories that create and/or reinforce inclusive education strategies.

## 3. Methodology

### 3.1. Research Context and Questions

In Spain, educational policies are decentralised through the Autonomous Communities, based on state legislation. Thus, in the case of Catalonia, inclusive education is governed by the Organic Law 3/2020 and the Decree 150/2017, which guarantee educational care within the framework of an inclusive system while educational care in special education schools is provided to cases that require measures of high-intensity educational support. Likewise, and within the inclusive system, special education schools can also provide services and resources for teachers, to guide and specify the actions best suited to the educational needs of pupils, developing specific programmes to support their schooling (Generalitat de Catalunya, 2017).

Nevertheless, the number of students enrolled in Catalan special education schools continues to increase year after year (Síndic de Greuges, 2021). This could be due, at least in part, to the reluctance of teachers to change their professional practices and classroom dynamics; barriers to the full participation of all students in some schools; the lack of support resources such as speech therapy or physiotherapy; the numerous cases of bullying, isolation, rejection, or exclusion they suffer; or some families' rejection that delay and hinder class performance (CERMI, 2021; Síndic de Greuges, 2021). Likewise, the distribution of pupils enrolled in special education in Catalonia is somewhat unequal, with 5.48% in early childhood education, 24.61% in primary education, 51.47% in compulsory secondary education, and the remaining 18.44% in post-compulsory education (Departament d'Educació, 2020). In addition to the data presented, the former General Director of Catalan Education stated that early childhood education is very inclusive and primary education is quite inclusive.

In contrast, compulsory secondary education is essentially segregated (Vicens, 2020).

The present research was conducted in a public special education school in Catalonia, where pupils aged between 12 and 21 years old require high-intensity educational support. However, in the 12–16 age group (corresponding to compulsory secondary education) many students come from primary schools who, at the end of this educational stage, and given the current perspective of inclusive education in secondary education, are recommended to enrol in a special education school. In addition, there are a few pupils previously enrolled in ordinary schools, who, given their experiences, have opted to switch to a special education school.

### 3.2. Research Objectives and Design

The primary objective guiding this study is to identify the presence, participation, success, and relationship between learners in the context of the carpentry classroom workshop.

The secondary objectives guiding this study are:

1. To analyze the carpentry classroom workshop participants' perception of presence, participation, success, and relationships between learners.
2. To study the influence of participation in the carpentry classroom workshop on the perception of presence, participation, success, and relationships between students.

For these purposes, this study employed a qualitative text analysis where the dimension and categories of analysis are deductive and formulated based on existing theory or previous research (Hsieh & Shannon, 2005, p. 1281), which in this case is the present analytical framework. Likewise, a new category emerges inductively from the contributions of the field diary. Thus, a three-stage process was used to create the categories. The central dimension of analysis—inclusive education—was identified in the first stage. In the second stage, the three categories associated with the dimension were identified: presence, participation, and success. Finally, in the third stage, based on a detailed reading of the field diary, a fourth category emerged (associated with the previous categories), that is, the relationships among the pupils.

The research is based on a case study due to the specificity of the carpentry classroom workshop. Further, since the researcher is the teacher of the carpentry class-room workshop, it was possible to access both the carpentry classroom workshop and the students.

### 3.3. Participants

The participants were the pupils of the carpentry classroom workshop and the researcher himself. The sample consisted of 19 pupils (17 boys and two girls) aged between 12 and 16 years in the special education school, who participate at least once a week in the carpentry classroom workshop, and the only teacher of the workshop and principal researcher of this study (Wolcott, 1985).

The researcher is also a teacher in the carpentry classroom workshop, which allows for an immersive experience. As a result, the researcher can gain knowledge and a deeper insight into the educational practice developed in the classroom and the participating students. However, this dual role has its limitations concerning the interpretative frameworks of the reality observed, as the perception of events is fully influenced by the dynamics developed over years of daily classroom practice. In this respect, it has sometimes been challenging to achieve the emotional distance required when researching these contexts.

### 3.4. Data Collection

The data for the present study were collected during the academic year 2018–2019, using two methods: (a) unstructured participant observations of the pupils during the carpentry classroom workshop and (b) student ratings.

The unstructured participant observations were conducted daily between September 2018 and June 2019, in the carpentry classroom workshop sessions, where the researcher is both teacher and investigator. Relevant observations were systematically recorded in a field notebook at the end of each session and subsequently transcribed and anonymised for processing and analysis.

The students' evaluations consisted of a voluntary document in which they were asked to write what they liked the most, what they liked the least, and what they would change about the carpentry classroom workshop. The seven pupils who finished their educational stage at the school were asked to make the evaluation, and only five responded.

To maintain the anonymity of the participants and to process and analyse the testimonies, the data were coded according to the source of origin (see Table 1).

**Table 1.** Coding of data depending on the source of origin.

| Code | Description |
| --- | --- |
| DC_XX | Transcribed text of the field diary |
| V_XX_AL | Student ratings |
| XX_AL | Verbatim transcript of learner comment or statement |
| RA_D | Verbatim transcript of teacher's comment/statement |

*3.5. Data Analysis*

For the analysis, the study adopted a triangulation technique (Flick, 2014) between the participant observation and the student ratings, allowing for in-depth thematic analysis and a more accurate view of the object under study. Thus, our analysis made use of the following progressive levels:

- Level 1: Identification of the dimension and categories of analysis derived directly from the theoretical concepts.
- Level 2: Manual coding based on the detailed reading of the transcripts of the participant observation and the student ratings, based on the coding of the texts according to the dimension and the categories of analysis.
- Level 3: Inductive identification of a new category of analysis based on the coding of the field diary.
- Level 4: Qualitative analysis of the information: interpretation of the data based on the dimension and categories of analysis.

A penultimate level of analysis was conducted where the following categories were identified: presence, participation, success, and relationships between students.

As stated in the theoretical framework, the four categories refer to: (a) *presence*, that is, the place where pupils are educated, but also being in the same place where their peers are educated, acceptance by peers, the feelings that presence generates for them, or the perception of sharing the same space with them; (b) *participation*, i.e., the quality of experiences through social interaction with peers, their social acceptance, increased opportunities for contact, the feeling of active participation among peers, or the perception of acceptance; (c) *success*, which, in addition to educational attainment, is also understood in terms of social interactions within and outside the school context, friendships between students, friendships between groups, perceived acceptance, or satisfaction with the school context; and (d) *relatedness between students*, which is based on friendships between group members, peer acceptance or interaction, or subjective perception of the feeling of relatedness.

# 4. Findings

The following results are divided into participation, success, and relationships between learners. The category of presence was not identified.

*4.1. Participation*

We have identified two main ways of encouraging the participation of all learners in the classroom workshop: by respecting the personal characteristics of each learner, adapting to their needs, interests, and poten-

tial, and by enabling them to experiment and reflect on what they are doing. However, and depending on the role developed, these ways are interpreted differently. Thus, the students understand their subjective experiences through the creative process fostered by the teacher, while the teacher is concerned with facilitating student participation in this process.

Regarding respect for personal characteristics, both students and teachers have highlighted the three most frequently used strategies: (a) adapting the creations to the interests and needs of everyone; (b) respecting their pace of learning, capacities, and potential; and (c) adapting the creations to the demands of the students. Thus, concerning the strategies used, the students perceive adaptation of the created objects and respect for their rhythm and capacities as fundamental for their participation in the classroom workshop. In this sense, everyone produced their creations based on their needs, interests, potential, and learning rhythm: "In the classroom workshop we all work together and each one with what they can do, look, he just polishes a car and I make a lamp, but we are all together and we will take the work home" (PM_AL).

The teacher, however, perceives both strategies as a challenge for making the creations feasible for each of the participants, adapting both the design and the creative process to the heterogeneity of the students:

> They have decided to make a Parcheesi, I have never done it before, I have to look for models and think of a way that allows them to develop the creation and that at the same time is feasible for them. (RA_D)

And finally, concerning the strategy of adapting the creations to the demands of the students, the classroom workshop methodology encourages the involvement of the students. In this sense, they are allowed to propose their creation, taking control over their decisions and actively participating in the design: "I ask what task they want to do. The group of students starts talking among themselves, and after a while MAS_AL proposes making a Parcheesi, and the rest of the group say that they would also like to do it" (DC_12/02/19). However, although choosing and deciding what creation to make is valued positively by the students, the same does not always happen in the collaborative design process between students and teacher. Some students prefer to begin the creation without designing it, and when the design process takes longer than necessary, they can become demotivated.

In concordance with the students' experimentation and reflection, students are encouraged to experiment and reflect on what they are doing in both the design and construction process. This means living, enjoying, or suffering the processes involved, which, at the very least, ensures the transformation of future experiences. In this regard, from the teacher's viewpoint, the pupils are motivated, supported equally, or guided in the creative

process so that each one can experiment and reflect on the process. Thus, for example, the teacher states: "I have been giving intense support to GI_AL and NP_AL in the sawing of the toy cars for some sessions, although their classmates have enough with occasional support" (RA_D). As far as the students are concerned, they understand experimentation and reflection in relation to the actions developed in the first person. Their subjective perception—and the subsequent experience—allows them to face the same task again in this or any other field.

### 4.2. Success

Success is interpreted in relation to the increase in confidence and empowerment of the students. The completion of the creation itself is a source of personal satisfaction for all the agents involved in the carpentry classroom workshop, which is expressed in various ways. Satisfaction can be gained from the students' achievements, from the participation, collaboration, and/or cooperation among participants, and from other people's recognition. However, with the completion of the creations, some students feel neither satisfied nor happy with the experience: "I really didn't like coming to the classroom workshop at all, there's dust, noise, I'm afraid of cutting myself" (MAS_AL).

The pupils recurrently recount the results of the experience in comments and conversations through expressions linked to overcoming, achievement, satisfaction, or empowerment due to completing a piece of work with their hands from scratch and, in so doing, taking the power to decide what they wanted to do. In this sense, pupils recall starting with a simple piece of wood and finishing with a tangible object which they could feel proud of: "I drew the car on the wood and sawed it, it seemed impossible!!!" (V_JS_AL). On the other hand, from the teacher's perspective, the result of the collaborative work with students is perceived based on the participation, collaboration, and/or cooperation of all participants, where completion of their creations has required bringing into play various workgroup strategies: "It has been nice to see how they have agreed to find solutions to the problems" (DC_29/04/19). Finally, the results are also reported in terms of the recognition that other people give to the creative efforts and the resulting product. Thus, posting a photo of the creation on the school blog, having their creation in a prominent place at home, or words of praise from family or friends, are all understood as success from the students' perspective.

### 4.3. Relationships With Pupils

Two clear types of interaction can be observed in the relationship between pupils: friendly relationships and relationships of conflict. However, it can also be observed that class group configuration is not random. An attempt is made to ensure those students who may have

good relationships with each other can work together. However, the incorporation of classmates whose relationships might represent a problem into the class group is also encouraged with the aim of fostering better relationships among the students.

Both friendship and collaborative relationships generate a valuable working atmosphere that the students consider fundamental in their subjective experience of the classroom workshop. The development of these relationships fosters closer ties between classmates, with the classroom workshop space and the tasks conducive to, for instance, helping, talking, joking, and even being able to meet up with classmates outside school, all of which are part of the experience: "I like to share with classmates and talk to them while we make our creations" (V_NG_AL). Not surprisingly, conflict relations also arise in the classroom workshop, whether due to small misunderstandings or arguments between classmates, or the personal discomfort towards their classmates because of noise, shouting, annoyance, insults, or sometimes aggression. This type of relationship is experienced from different positions. For the pupils it is an unpleasant experience that they want to put an end to—either by redirecting the attitude between them, mediation, or through action on the part of the teachers: "We are fed up with MF_AL constantly bothering us, we don't like it" (DC_12/02/19)—and perceived in terms of displeasure, sadness, or tiredness. For the teacher, however, it is viewed as a brief maladjustment in the relationships between classmates, addressed by mediation between students, more individualised attention to students, incorporating an extra teacher in the classroom workshop, or reconfiguring the group if necessary.

## 5. Discussion

This case study suggests that, while the literature on inclusive education is often divergent, the literature on Sloyd is convergent, which leads us to assume, in line with Nilholm (2021), that the research context is important to understand inclusion.

### 5.1. Inclusive Education

The conceptualisation in the literature on inclusive education and that of the actors involved—pupils and teachers—do not coincide in terms of their perspectives. Thus, while in the inclusive education literature the central focus is on the pupils, their relationships, and their feelings about the experience, the results of this case study have emphasised certain aspects related to the framework of the carpentry classroom workshop. These aspects have a decisive influence on the participating actors' perception of the categories of participation, success, and relationships among the learners.

Various authors advocate presence (Ainscow et al., 2006; Ainscow & Messiou, 2018; Slee, 2018) based on the premise that presence with peers is fundamental

for inclusive education, while others also add the importance of the subjective perception of belonging (Bossaert et al., 2013; Vyrastekova, 2021). However, in the case analysed here, no such category was identified.

Participation is eminently conceptualised in the analytical framework based on the relationships that the subject establishes, be it opportunities for participation in relation to peers (Ainscow & Messiou, 2018; Juvonen et al., 2019; Koster et al., 2009), or the subjective perception of such participation (Juvonen et al., 2019). Regarding the results of the carpentry workshop classroom study, it appears that as the carpentry workshop classroom is adapted to the needs and interests of the pupils in the process of making, it influences the way participation is perceived. Thus, participation is interpreted by the participating actors—pupils and teacher—as to aspects related to the tasks carried out, such as respect for personal characteristics (whether through the adaptation of creations, respect for rhythms, or adaptation to needs) or the predisposition to experimentation and reflection (Bandura, 1977; Dewey, 1938; Gibbs, 1988; Kolb, 2015). Likewise, it is also noted that students perceive participation based on their experiences of the creative process (Borg, 2006; Skolverket, 2015), while for the teacher, the chief concern is how to facilitate the students' participation in this process.

Aside from an assessment of results in terms of evaluation, success is also conceived as social interactions, intergroup friendships, or subjective perception of acceptance (Bossaert et al., 2013; Juvonen et al., 2019; Vyrastekova, 2021). However, for the participants of the carpentry classroom workshop, success is nuanced through the framework that the classroom workshop exerts, mainly in the form of empowerment. Thus, the notion of success translates to improvement, satisfaction, achievement, empowerment, or recognition for the students. In contrast, for the teacher, empowerment is based on collaboration and cooperation between students, through, for example, participation between actors—whether between students or students and teachers. Thus, the way of developing the creative process seems to have a determining influence on the pupils, either through their achievements, learning, or overcoming of failures, which becomes the main axis of perceived success.

In the relationships between pupils, there is a partial agreement between how the literature perceives them and how the actors involved perceive them. This could primarily be because the context is not as important as the subjects with whom the relationship is established. From the various perspectives of students, teachers, and the literature, relationships between students are valued based on the relationships established, where participants describe them in terms of mutual help, talking, joking, or otherwise distorting or annoying, while the literature views these relationships in terms of interaction or acceptance between peers (Bossaert et al., 2013). However, affinity is valued by both the literature and the

actors, with actors basing this on shared affinities, and the literature on friendships between group members (Bossaert et al., 2013). Finally, only in the literature is affinity valued as the subjective perception of the feeling of relatedness (Le Boutillier & Croucher, 2010).

### 5.2. Sloyd

Comparing the results of the carpentry classroom workshop case study with the Sloyd literature, there is a strong similarity between the two concerning the categories of participation, success, and student relationships. This similarity between results may be due to the fact that both the Sloyd and the woodwork classroom workshop are learning contexts that are somewhat different from traditional academic subjects, and that both promote the development of skills such as working with the hands or creativity, thus exerting a strong influence on the perception of inclusive education.

Thus, participation is interpreted by the actors in the carpentry classroom workshop based on respect for personal characteristics and a willingness to experiment and reflect, while the Sloyd literature highlights how historically the pupil has been placed at the centre of learning, adapting teaching methods and content to their individual abilities (Salomon, 1892; Thorsteinsson & Ólafsson, 2014; Thorsteinsson et al., 2015). In addition, Sloyd has always attached great importance to experiential learning and reflection in the learning process (Borg, 2006; Skolverket, 2021). Regarding success, the participants in the carpentry classroom workshop interpret this in terms of empowerment resulting from the completion of the creations and the cooperation and collaboration between students. In a similar vein, the literature on Sloyd shows how students emphasise that the completion of the Sloyd subject provides them with a sense of improvement, satisfaction, motivation, or increased confidence (Danmarks Evalueringsinstitut, 2019; Kjosavik et al., 2003), as well as the experience of collaboration between students (Børne- og Undervisningsministeriet, 2019). Finally, this case study highlights that these social relations are mainly interpreted in terms of affinity and established relationships, while the literature argues that talking to peers, moving freely around the space, or a more relaxed atmosphere are all fundamental for fostering social relations (Danmarks Evalueringsinstitut, 2019).

### 6. Conclusions

This study highlights the limitations of the current literature on inclusive education. In particular, the literature usually views inclusive education through a broader lens, where the particular context is not considered. However, the present case study shows that the protagonists— pupils and teachers—in the carpentry classroom workshop interpret inclusive education in that particular context. Thus, according to the participants, to develop

educational inclusion in the carpentry classroom work-shop it is necessary to:

- Respect the individual characteristics or rhythms of the pupils.
- Adapt work processes to enable the participation of all pupils.
- Obtain recognition for oneself and others once the task is completed, which leads to an increase in confidence and empowerment of the participants.
- Conduct the activities in a friendly and trusting environment while fostering shared experiences among peers.

Therefore, and following the line of argument proposed by Nilholm (2021), we subscribe to the need to develop new theories on inclusive education based on the accumulation of empirical evidence from case studies. Accordingly, the present findings suggest the need for further research on inclusive education in a given context and in relation to Sloyd.

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### Conflict of Interests

The authors declare no conflict of interests.

### References

Ainscow, M., Booth, T., & Dyson, A. (2006). *Improving schools, developing inclusion*. Routledge. https://doi.org/10.4324/9780203967157

Ainscow, M., & Messiou, K. (2018). Engaging with the views of students to promote inclusion in education. *Journal of Educational Change*, *19*(1), 1–17. https://doi.org/10.1007/s10833-017-9312-1

Amor, A. M., Hagiwara, M., Shogren, K. A., Thompson, J. R., Verdugo, M. Á., Burke, K. M., & Aguayo, V. (2018). International perspectives and trends in research on inclusive education: A systematic review. *International Journal of Inclusive Education*, *23*(12), 1277–1295. https://doi.org/10.1080/13603116.2018.1445304

Armstrong, D., Armstrong, A. C., & Spandagou, I. (2011). Inclusion: By choice or by chance? *International Journal of Inclusive Education*, *15*(1), 29–39. https://doi.org/10.1080/13603116.2010.496192

Autio, O., Thorsteinsson, G., & Ólafsson, B. (2012). A comparative study of finnish and icelandic craft education curriculums and students' attitudes towards craft and technology in schools. *Procedia—Social and Behavioral Sciences*, *45*, 114–124. https://doi.org/10.1016/j.sbspro.2012.06.548

Bandura, A. (1977). *Social learning theory*. Prentice-Hall.

Black, A. (2014). A school for the future—2025: Practical futures thinking. *Journal of Research in Special Educational Needs*, *14*(1), 51–65. https://doi.org/10.1111/1471-3802.12051

Booth, T. (2011). The name of the rose: Inclusive values into action in teacher education. *Prospects*, *41*(3), 303–318. https://doi.org/10.1007/s11125-011-9200-z

Borg, K. (2006). What is Sloyd? A question of legitimacy and identity. *Tidskrift För Lärarutbildning Och Forskning*, *13*(2/3), 34–51.

Børne- og Undervisningsministeriet. (2019). *Håndværk og design. Faghæfte 2019* [Crafts and design. Subject booklet 2019].

Bossaert, G., Colpin, H., Pijl, S. J., & Petry, K. (2013). Truly included? A literature study focusing on the social dimension of inclusion in education. *International Journal of Inclusive Education*, *17*(1), 60–79. https://doi.org/10.1080/13603116.2011.580464

CERMI. (2021). *Derechos humanos y discapacidad. Informe España 2020* [Human rights and disability. Spain 2020 report]. CINCA.

Danmarks Evalueringsinstitut. (2019). *Evaluering af folkeskolens nye fag madkundskab og håndværk og design* [Evaluation of the primary school's new subject food knowledge and craft and design].

Departament d'Educació. (2020). *Special education statistics for the 2019–2020 academic year*. https://bit.ly/3FTnCzw

Dewey, J. (1938). *Experience and education*. Kappa Delta Pi.

Flick, U. (2014). *Introducción a la investigación cualitativa* [Introduction to qualitative research]. Morata.

Florian, L. (2019). On the necessary co-existence of special and inclusive education. *International Journal of Inclusive Education*, *23*(7/8), 691–704. https://doi.org/10.1080/13603116.2019.1622801

Generalitat de Catalunya. (2017). *Decret 150/2017 de 17 d'octubre, de l'atenció educativa a l'alumnat en el marc d'un sistema educatiu inclusiu* [Decree 150/2017 of 17 October, on the educational care of students within the framework of an inclusive education system]. https://bit.ly/3qoFMT0

Gibbs, G. (1988). *Learning by doing. A guide to teaching and learning methods*. Oxford Brookes University.

Haug, P. (2017). Understanding inclusive education: Ideals and reality. *Scandinavian Journal of Disability Research*, *19*(3), 206–217. https://doi.org/10.1080/15017419.2016.1224778

Hornby, G. (2015). Inclusive special education: Development of a new theory for the education of children with special educational needs and disabilities.

*British Journal of Special Education*, *42*(3), 234–256. https://doi.org/10.1111/1467-8578.12101

Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Juvonen, J., Lessard, L. M., Rastogi, R., Schacter, H. L., & Smith, D. S. (2019). Promoting social inclusion in educational settings: Challenges and opportunities. *Educational Psychologist*, *54*(4), 250–270. https://doi.org/10.1080/00461520.2019.1655645

Kjosavik, S., Koch, R., Skjeggestad, E., & Aakre, M. (2003). *Kunst og håndverk i L97. Nytt fag—Ny praksis?* [Arts and crafts in L97. New subject—New practice?]. Telemarksforsking Notodden.

Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning* (2nd ed.). Pearson Education.

Koster, M., Nakken, H., Pijl, S. J., & van Houten, E. (2009). Being part of the peer group: A literature study focusing on the social dimension of inclusion in education. *International Journal of Inclusive Education*, *13*(2), 117–140. https://doi.org/10.1080/13603110701284680

Laval, C. (2004). *La escuela no es una empresa. El ataque neoliberal a la enseñanza pública* [The school is not a company. The neoliberal attack on public education]. Paidós.

Le Boutillier, C., & Croucher, A. (2010). Social inclusion and mental health. *British Journal of Occupational Therapy*, *73*(3), 136–139. https://doi.org/10.4276/030802210X12682330090578

Moorhouse, P. (2020). *Researching quality provision of woodwork in early childhood education*. Winston Churchill Memorial Trust.

Nilholm, C. (2021). Research about inclusive education in 2020: How can we improve our theories in order to change practice? *European Journal of Special Needs Education*, *36*(3), 358–370. https://doi.org/10.1080/08856257.2020.1754547

Norwich, B. (2014). How does the capability approach address current issues in special educational needs, disability and inclusive education field? *Journal of Research in Special Educational Needs*, *14*(1), 16–21. https://doi.org/10.1111/1471-3802.12012

Ólafsson, B., & Jóelsdóttir, Á. (2018). Design og håndverk og Tekstil på Island [Design and crafts and textiles in Iceland]. *Techne Serien A*, *25*(3), 39–57.

Ólafsson, B., & Thorsteinsson, G. (2009). Design and craft education in Iceland, pedagogical background and development: A literature review. *Design and Technology Education*, *14*(2), 10–24.

Ólafsson, B., & Thorsteinsson, G. (2012). The intelligence of the hands: Studying the origin of of pedagogical craft education. *Journal on Educational Psychology*, *5*(3), 1–8.

Paliokosta, P., & Blandford, S. (2010). Inclusion in school: A policy, ideology or lived experience? Similar findings in diverse school cultures. *Support for Learning*, *25*(4), 179–186. https://doi.org/10.1111/j.1467-9604.2010.01464.x

Parsons, S., Lewis, A., Davison, I., Ellins, J., & Robertson, C. (2009). Satisfaction with educational provision for children with SEN or disabilities: A national postal survey of the views of parents in Great Britain. *Educational Review*, *61*(1), 19–47. https://doi.org/10.1080/00131910802684755

Perlic, B. (2019). *Lærerkompetanse i grunnskolen. Hovedresultater 2018/2019* [Teacher competence in primary school. Main results 2018/2019]. Statistisk sentralbyrå.

Pijl, S. J., & Frostad, P. (2010). Peer acceptance and self-concept of students with disabilities in regular education. *European Journal of Special Needs Education*, *25*(1), 93–105. https://doi.org/10.1080/08856250903450947

Plaisance, É., Belmont, B., Vérillon, A., & Schneider, C. (2007). Intégration ou inclusion? Éléments pour contribuer au débat [Integration or inclusion? Elements to contribute to the debate]. *La Nouvelle Revue de l'adaptation et de la Scolarisation*, *37*(1), 159–164. https://doi.org/10.3917/nras.037.0159

Qvortrup, A., & Qvortrup, L. (2018). Inclusion: Dimensions of inclusion in education. *International Journal of Inclusive Education*, *22*(7), 1–15. https://doi.org/10.1080/13603116.2017.1412506

Razer, M., Friedman, V. J., & Warshofsky, B. (2013). Schools as agents of social exclusion and inclusion. *International Journal of Inclusive Education*, *17*(11), 1152–1170. https://doi.org/10.1080/13603116.2012.742145

Salomon, O. (1892). *The teacher's hand-book of Slöjd*. Silver Burdett & Co.

Shaw, A. (2017). Inclusion: The role of special and mainstream schools. *British Journal of Special Education*, *44*(3), 292–312. https://doi.org/10.1111/1467-8578.12181

Síndic de Greuges. (2021). *L'educació inclusiva a Catalunya* [Inclusive education in Catalonia].

Skolverket. (2015). *Slöjd i grundskolan. En nationell ämnesutvärdering i årskurs 6 och 9* [Handicraft in primary school. A national subject evaluation in years 6 and 9].

Skolverket. (2021). *Kommentarmaterial till kursplanen i slöjd. Grundskolan* [Commentary material for the course syllabus in handicraft. Primary school].

Slee, R. (2011). *The irregular school. Exclusion, schooling and inclusive education*. Routedge.

Slee, R. (2018). *Inclusion and education. Defining the scope of inclusive education*. Unesco.

Thorsteinsson, G., & Ólafsson, B. (2014). Otto Salomon in Nääs and his first Icelandic students in Nordic Sloyd. *History of Education*, *43*(1), 31–49. https://doi.org/10.1080/0046760X.2013.835451

Thorsteinsson, G., Ólafsson, B., & Yokoyama, E. (2015). Otto Salomon and Aksel Mikkelsen, and their pedagogical models for establishing sloyd education in

Denmark and Sweden. *Bulletin of Institute of Technology and Vocational Education*, *13*(1), 1–8. https://doi.org/10.18999/bulitv.13.1

United Nations. (2017). Transforming our world: The 2030 agenda for sustainable development. In W. Rosa (Ed.), *A new era in global health. Nursing and the United Nations 2030 agenda for sustainable development* (pp. 529–567). Springer. https://doi.org/10.1891/9780826190123.ap02

Verdugo, M. Á., & Rodríguez, A. (2012). La inclusión educativa en España desde la perspectiva de alumnos con discapacidad intelectual, de familias y de profesionales [Educational inclusion in Spain from the perspective of students with intellectual disabilities, families and professionals]. *Revista de Educación*, *358*, 450–470. https://doi.org/10-4438/1988-592X-RE-2010-358-086

Vicens, L. (2020, December 20). Els límits de l'escola inclusiva: "Sé que li farà mal anar a l'institut" [Inclusive school boundaries: "I know it hurts to go to high school"]. *Ara*. https://bit.ly/39otzGh

Vyrastekova, J. (2021). Social inclusion of students with special educational needs assessed by the inclusion of other in the self scale. *PLoS ONE*, *16*(4). https://doi.org/10.1371/journal.pone.0250070

Wolcott, H. F. (1985). On ethnographic intent. *Educational Administration Quarterly*, *21*(3), 187–203. https://doi.org/10.1177/0013161X85021003004

Zablocki, M., & Krezmien, M. P. (2013). Drop-out predictors among students with high-incidence disabilities: A national longitudinal and transitional study 2 analysis. *Journal of Disability Policy Studies*, *24*(1), 53–64. https://doi.org/10.1177/1044207311427726

**About the Authors**

**Rafel Argemí-Baldich** is a special education teacher and coordinator of the carpentry classroom workshop in a school run by the Barcelona Education Consortium. He has a degree in teaching and anthropology. He is currently working on his PhD in education and society (Department of Research Methods and Diagnosis in Education, Faculty of Education, University of Barcelona) with the thesis *Validation of the Program* Toca Fusta *Well-Being Through Wood.* His research career includes well-being, inclusive education, and Sloyd. His most recent publications include "Early Childhood and Lockdown: The Challenge of Building a Virtual Mutual Support Network Between Children, Families, and School for Sustainable Education and Increasing Their Well-Being" (*Sustainability*).

**Paulo Padilla-Petry** is a lecturer at the Department of Research Methods and Diagnosis in Education, Faculty of Education, University of Barcelona, and is a member of the GRISIJ-UB-UdL research group on socio-educational interventions in childhood and youth. His research career includes studies on youth, student engagement, inclusive education, and mental health. His most recent publications include "Using Cartographies to Map Time and Space in Teacher Learning in and Outside School" (*International Journal of Qualitative Methods*).

**María Inés Massot-Lafón** is full professor at the Department of Research Methods and Diagnosis in Education, Faculty of Education, University of Barcelona, and is a member of the GREDI-UB-URV Intercultural Education Research Group. Her research interests include interculturalism and participation.