ENABLING INCLUSIVE GROUP WORK

Elaine McPherson, Trevor Collins and Anne-Marie Gallen

The Open University (United Kingdom)

Abstract

Group and team work promote key employability skills, required by many degree accrediting bodies, and are viewed as active and authentic ways of learning, supporting the construction of knowledge among peers. However, managing expectations, group dynamics, and assessing group and individual contributions is challenging. Group work approaches that consider diversity and promote equitable participation by all students, enhance the culture of the learning environment and are more likely to lead to productive group interactions. Here, we focus on the development of guidance on inclusive teaching and learning for university lecturers and students involved in group work (both face-to-face and online), as part of an anticipatory approach for including students with disabilities.

A collaborative approach with a range of stakeholders across our institution was taken to scope and iteratively develop a set of guidance materials. Initial discussions involving students with disabilities from different disciplines identified a set of issues and some recommendations. Interviews conducted with relevant staff corroborated and extended these ideas, which were used as a basis for developing professional development resources for staff leading group work activities. The resources developed were then trialled and refined based on staff feedback.

The student focus group and staff interview findings were then reviewed to refocus on issues relevant to the design of group work activities. The findings provided a basis for critically reviewing the group work activities with the designers of a recently developed module, and to make recommendations for the designers creating group work activities for a new module. This process of working with academics to review and inform group work designs, is currently being abstracted to produce recommendations for group work designers. A further iteration with students is also underway to extend guidance materials for students working in groups, to raise awareness of student diversity and approaches to accommodate students with disabilities.

Engaging stakeholders in the iterative development of guidance for inclusive group work has revealed issues but also offered solutions. For example, students identified the benefits of having information in advance to help reduce anxiety and allow them to plan (e.g. for extra study time). Students also noted that how group work is initiated affects the extent to which they feel included throughout the activities. It became clear that leaders have a specific role in setting the tone and expectations for the group (e.g. the need to be considerate and respectful of each student) and then modelling the desired behaviour.

Aspects of module design that were determined as being essential for inclusive group work included the choice of tools for communicating; scheduling enough time for reading and thinking; establishing a range of roles and agreeing tasks within the group (e.g. data gatherer); and designing contingencies into tasks that minimise the impact of delays or inconsistent contributions. Setting the context of group work is also important, so that students understand what skills are being developed and how they are authentic in relation to the discipline. In this presentation we will share the resources developed and processes used to create them, with the aim that they may be valuable to other institutions or adapted for other institutional contexts.

Keywords: inclusion, group work, disability, accessibility.

INTRODUCTION

This paper discusses a process in which student and staff experiences were used to develop guidance for enabling students with disabilities to participate equitably in group work activities within a university setting. Group work and teamwork are deemed active and authentic ways of learning, supporting the construction of knowledge among peers [1]–[4]. However, running a successful group work activity is not easy; managing expectations, group dynamics, and assessing group and individual contributions are challenging. These challenges may be magnified when group work is undertaken by diverse groups of students with different needs or approaches, as may be the case when the group includes students with disabilities.

1.1   Group work

In this paper, group work is used to mean any activity that students conduct together, within a specific timeframe, as part of their university study. Whilst both teamwork and group work involve collaborative working to complete a shared goal, teamwork combines the individual efforts of all members, whilst group work involves individuals working collaboratively to complete a task collectively.

Group work activities are often highly valued in higher education as they are believed to teach students key employability skills; specifically, the skill of teamworking. Job applicants will often be questioned on their ability to work as part of a team and are expected to provided evidence of their recent involvement in team or group work. In 2011, in the UK, the National Union of Students (NUS) and the Confederation of British Industry (CBI) collaborated to produce guidance for university students which listed seven key capabilities wanted by employers [5]. This list included 'teamworking' but also 'problem solving' and 'communication' both of which are skills that are commonly developed in higher education group work activities. Furthermore, group or teamwork is a requirement of many degree accrediting bodies and professional associations and features in most of the UK Subject Benchmark Statements.

1.2   Students with disabilities in HE and the disability attainment gap

The UK's Higher Education Statistics Agency (HESA) reported in 2017/18 that 15% of HE students declared a disability, and of those 283,030 students, the most frequently declared forms of disability were Specific Learning Difficulties (109,395 students; 39% of declarations) and Mental Health conditions (66,660 students; 24%). Furthermore, national data on the performance of UK Higher Education Institutions (HEIs) identifies persistent differences in degree outcomes for specific student groups, even when other background characteristics and prior attainment are considered [6].

Specifically, for students with disabilities, this is reflected in terms of qualification completion, degree attainment and overall satisfaction with their experience of Higher Education (HE). For example, of the 275,800 UK-based undergraduate students graduating in 2016-17, 77% of students that had declared a disability gained a first or upper-second honors degree, compared to 80% of students not declaring a disability. This three percentage points difference in the proportion of undergraduate students attaining a first or upper-second class honors has persisted year-on-year since 2013-14 [7, p. 18]. This gap in attainment is not only a UK phenomenon but has also been recognized globally [8]–[10].

To date, no single solution has been found to address the attainment gap for students with disabilities and in fact it seems likely that the gap is the result of an accumulation of many small challenges and barriers. There has been a sustained effort to reduce these barriers and challenges by

embedding inclusive teaching practices, including strategic approaches to disabled student engagement [11], guidance on inclusive learning and teaching and inclusive curriculum design [12], [13], risks and mitigations for HEIs providing alternative adjustments [14], and exemplary models of support for students with disabilities [15].

This work aims to contribute to that effort by focussing on the development of guidance on inclusive teaching and learning for university lecturers and students involved in group work (both face-to-face and online), as part of an anticipatory approach for including students with disabilities.

1.3 Inclusive group work at the OU

The Open University (OU) has seen a 5% rise in students declaring a disability over the last five years; of the 164,510 students enrolling with the OU in 2017-18, 21% declared a disability (i.e. 35,026 students) with the most frequent categories of declarations relating to mental health conditions (8,316 students; 24% of declarations) and specific learning difficulties (5,375; 15%). Participation in group work is a challenge for all students but may be magnified for those with disabilities. For example, mental health conditions or Autism Spectrum Disorder can have an impact on some students' social interactions or ability to organize tasks; specific learning difficulties such as dyslexia and dyspraxia can affect students' reading and contributions within text-based forum discussions; visual impairments can alter students engagement with visual formats; and hearing impairments may affect students participation in real time verbal discussions (either online or face-to-face). Consequently, concerns have been raised by staff about the difficulties of ensuring group work activities are inclusive of students with disabilities.

2 METHODOLOGY

The methodological approach taken was grounded in a pragmatic worldview focusing on understanding problems and developing solutions [16]. Given the persistence of the disability attainment gap, it is likely that the current understanding of the effect of group work on this gap is insufficient and so the project team approached the issue with a 'questioning and listening' mindset to try to allow issues and solutions to emerge organically. A collaborative approach was used with a range of stakeholders; including students, support and academic staff, across the institution to scope and iteratively develop a set of guidance materials around group work.

Within the distance learning study mode provided by the OU, module teams design and write the materials for a group work activity. However, it is usually delivered to students by associate lecturers (i.e. tutors) who are often one step removed from the design of the activity. It is often those who deliver the group work who are directly involved with helping students that are affected by barriers to accessibility or inclusion. This group of staff was therefore explicitly included in the testing phase of the project alongside the module designers. This research was undertaken with approval from the OU's Human Research Ethics Committee.

2.1 Listening to students

The first steps involved bringing together students with disabilities who had experienced group work through a variety of media, including online, face-to-face and at residential schools. This was done as part of a one-day Student Voice workshop involving six students and five members of staff. The students were all members of the OU's Disabled Students' Group, which listens to, supports and represents the wider population of students with disabilities at the OU. Three staff members

facilitated three parallel discussions with pairs of students, and took notes, which were circulated and agreed with the students afterwards.

During the discussions, the students were asked to describe their previous experiences of group work. The rich narratives that resulted highlighted a range of experiences. The students were then asked to suggest what advice would be helpful for staff designing and facilitating group work activities including students with disabilities. Lastly, the students were asked for advice that might be helpful for students (with and without disabilities) when participating in inclusive group work activities. The findings from the Student Voice workshop were used to identify issues and make recommendations for those designing and leading group work activities.

2.2 Listening to practitioners

Following the student group discussions, individual semi-structured interviews were conducted with 11 members of staff involved in designing or facilitating group work tasks. Telephone interviews were carried out by one of two interviewers. All the interviews were audio recorded and brief notes were also taken at that time by the interviewer. The interviewees included academic members of staff involved in module teams, line managers supporting associate lecturers leading group work tasks and disability support staff. The interviews started with open questions about past group work experiences, looking for examples of best practice, inclusive approaches and different ideas.

The work also involved gathering good practice guides from across the sector from the literature and from colleagues at another HEI during two half-day visits to discuss their group work practices and associated support for students with disabilities. Finally, formative feedback on the resources developed for staff was gathered through the use of the resources during professional development events at the OU and in a workshop session organized as part of a national HE STEM education conference.

2.3 Data analysis

The interview recordings and focus-group notes were analysed thematically [17] to identify common threads between the narratives of staff and students. The aim at this stage was to surface approaches taken by group work facilitators and designers that had been helpful in enabling students with disabilities to improve participation in group work, as well as noting barriers that could be created by the way group work was led. Bringing together those approaches identified as 'tried and tested' with those used less widely but equally effectively helped to collate a repository of knowledge and practice.

2.4 Developing resources for training

During the next stage of the development cycle, insights from this process formed the basis for developing professional training resources for University staff who lead group work activities. A time-line approach was used to make suggestions about what useful interventions staff can make ahead of group-work, as well as suggestions for starting a group, monitoring a group and closing a group. The draft guidance for staff who facilitate group work was presented to members of the university's Associate Lecturer community at face-to-face staff development events. The draft materials were discussed, and feedback was collected and collated before being used to refine the guidance.

2.5 Developing guidance for designing group work

At this stage, a further review of the student and staff interview recordings and notes allowed for a re-focus on issues relevant to the design of group work. This iterative approach provided a basis for critically reviewing the group work activities with the designers of a recently developed module within Environmental Science.

Having been used with approximately 300 students during the first presentation of the module, the group work activities had been well received. However, the review did identify some changes to the information and support provided for the activity that could improve inclusion for students with disabilities on future presentations. The inclusive approach already used within the design of this module also added to our examples of good practice. Using the outcomes from this review and the associated discussions, a draft set of recommendations were developed aimed at staff designing new group work activities. The recommendations were subsequently offered as guidance to staff involved in the process of designing a new group work activity to validate their usefulness.

2.6   Closing the loop with students

To close the cycle that began with listening, the final step in the process is a further iteration involving re-engagement with students with disabilities, to check that our recommendations are useful and appropriate. Additionally, we plan to use the student iteration to further develop guidance materials for students working in groups, to raise awareness of student diversity and approaches to accommodate students with disabilities as a way of drawing out and focusing upon inclusive group work involving all students.

3. FINDINGS

The following findings are drawn from the thematic analysis of the student discussions and staff interviews. They provide distinct perspectives on common issues that we sought to address through the development of training resources for staff facilitating group work, guidance for staff designing group work activities, and guidance to encourage students to consider diversity and inclusion when engaging in group work. The resulting set of resources are available online at https://weblab.open.ac.uk/incstem.

3.1   Students' perspectives

Looking back at the experience of this participatory approach to group work aimed at students with disabilities, several factors have been identified as indicative of successful interactions. Student dialogues included varied experiences of group work and its impact. One thing that they identified in common across their narratives was that their own feelings about whether they were included and could participate in the group work, often began before or within the initial introductory sections of the activity.

Students identified the benefits of advance information to help reduce anxiety and to allow them to plan their own support for participation in the activity. For example, some students require non-medical helpers to enable participation in online forums or online conferencing. The application for funding or booking of helpers' time required knowledge, not only of dates but also hours spent on each type of activity. Other students, for example those with fatigue or who have challenges associated with reading multiple forums posts (e.g. students with dyslexia), may need to clear their diaries of other commitments during the planned group activity dates. Lack of sufficiently detailed information in advance of module start could therefore act as a specific barrier to inclusive group work.

Students noted that 'how' group work is initiated, in terms of student introductions or starter activities (i.e. ice-breakers) had strongly affected the extent to which they felt included for the rest of the activity. It became clear that group work leaders have a specific role in setting the tone and expectations for the group and then modelling the desired behaviour. It is important that group work facilitators clarify the expectation that students are considerate and respectful of each other and that it is the responsibility of each student to ensure that all of their group are included in discussions and decision making, reinforcing the benefits of a truly inclusive approach [18].

3.2   Practitioners' perspectives

Those leaders and designers of group work interviewed, displayed commitment and thoughtfulness about the inclusion of students with disabilities in group work. Some practitioners had experienced difficulties in undertaking group work as students themselves due to dyslexia or health conditions leading to a reflective approach to inclusion. As in the student discussions, a set of themes recurred in multiple interviews, some of which were new themes but others of which corroborated and extended the suggestions and feedback received from the students.

One major theme that was emphasised by group work practitioners was that group work needed to be authentic, the type of tasks being representative of those undertaken by professionals employed within a discipline. This is consistent with previous suggestions that effective group work needs to be authentic [19] and have real-world relevance [20]. They emphasised that students should be told what skills are being developed and how they are authentic to the discipline, so that students who have anxiety or other challenges around group work can make informed decisions about how (and whether) to participate. As always when designing a successful activity, the group work task needs to be something the group will want to do; always bearing in mind the academic level of the students and their experience of group work when deciding how much support needs to be designed into the task.

Staff considered it vital that careful consideration was given to how group work was assessed and how different types of assessment might affect students with different disabilities. Assessment, and the weight it carries, may impact the emotional climate of the whole group and consequently how the group interacts. This may be felt more keenly by some students, for example those with mental health conditions. Assessment may also affect students' willingness to support or wait for students who need additional time on tasks. The type of assessment itself can also place an additional burden on students with disabilities. Commonly group tasks end with a presentation or results, which can induce extreme anxiety in some students if compulsory participation in the actual presentation (rather than just the preparation) is required of all students. Payne et al. [21] noted that students may be unwilling to participate in group work because their outcomes may be dependent on other students.

The choice of communication tools was a further aspect of module design emphasised by both practitioners and students as being essential for inclusive group work. There is no single communication tool that suits all students. For example, a student with a hearing impairment may find verbal discussion in an electronic conference difficult and written forum discussions preferable, whereas a student with a visual impairment may have a different preference. Additionally, students who use assistive tools (such as screen readers or speech to text software) may become proficient at using one communication tool (e.g. one type of forum) but find it very time consuming to learn the interface for a new tool (e.g. another forum application). Given these difficulties, activity designers and facilitators need to allow a level of flexibility in the choice of communication method and should encourage each individual group to explore the best communication tool for that group. This finding

applies to activities conducted face-to-face or in an online setting, whenever students are asked to work in a group over an extended time period.

Those students with dyslexia may need additional time to study reading material linked to the group work as well as any of the text-based group discussions themselves. Therefore, the scheduling of sufficient time for reading and thinking is also essential for these students. Additionally, students with specific learning difficulties including dyslexia and dyspraxia may need more time to digest information and order their thoughts before contributing to the group. If the group work has a narrow, limiting time-frame this could exclude these students from effective participation. Furthermore, students with fatigue, chronic pain or health conditions may need scheduled time to take breaks without feeling like they are holding up the group. It follows that, as well as thinking about the timing of tasks within the group work, consideration needs to be given to avoiding times of high student workload in other modules, as this may disproportionately increase the burden on students with disabilities requiring additional time to complete tasks.This echoes suggestions for improvements to group work tasks raised in other projects (without the same focus on students with disabilities). For example, Burdett reported that suggestions by students for improving group work included 'improving time management and communication' [23, p. 186]. If sufficient time is scheduled in the design of group work tasks, as recommended by practitioners in this current work, then it is likely to benefit not only students with declared disabilities but the whole group.

A theme that arose in many discussions around group work was anxiety. Donelan and Kear [22] noted that the prospect or experience of collaboration could cause anxiety for some students and this theme was also raised in our interviews. A further issue involved the lack of contribution by one or more students and how this may cause significant anxiety to others within the group. Conversely, a student who becomes unable to contribute (e.g. due to a health condition) may suffer significant distress if they believe they are negatively impacting the group. Practitioners noted that designing contingencies and redundancy into tasks can minimise the impact of delays or inconsistent contributions from group members. One example of good practice in successfully using redundancy in this way, was illustrated in a group task where pre-gathered data was made available in advance and each student chose to take one of a range of suggested perspectives (e.g. local resident, environmental activist, local councillor, scientific advisor, etc). The group then created a presentation based on the sum of the different perspectives taken. The lack of participation by any student simply resulted in fewer perspectives being given but would not prevent completion of the task.

Another approach to designing successful group work that was identified was the inclusion of a range or variety of roles (e.g. data gatherer, literature reviewer, group leader, slide designer, presenter, fact checker etc.) within the task. This approach allows students to choose roles appropriate to their specific strengths, reinforcing the inclusive nature of team approaches. For example, a student who finds verbal communication challenging may prefer a role involving data collection or analysis rather than a role as a presenter. By encouraging the group to agree tasks based on each other's strengths inclusive practices can be reinforced and developed as standard within group and team work.

Both students and practitioners agreed that group work design needs to include planning for when things go wrong. This can be made clear in advance to facilitators and, if appropriate, to anxious students or those with specific study-support needs. One example is the use of pre-collected or prepared data which can be used should the data collector drop out or data collection fail. Meanwhile, practitioners also emphasised the need for students to practise the skills of group work and to bond as a group before an assessed group work task. Using a low-risk, low-stakes task can

help facilitate this. A further example of good practice involved students gathering data individually as part of a prior piece of assessment, especially if they find working with others challenging, but then feeding that data into the group for the task, reinforcing the value of their initial contribution.

The sensitive topic of disclosure was also raised by practitioners. Non-visible disabilities may not be obvious to other students, unless the student chooses to disclose their disability or health condition to others in the group. An important role for group work leaders is to enable any student to think through, in advance of the group work, the consequences of disclosing to other students in their group. If a student chooses to disclose, the group leader can facilitate the outcomes including supporting other students in their responses.

Group work closure was also perceived to be an important stage by experienced practitioners. A debrief gives space for reflection on how group work has gone, what can be learnt from the shared experience and how this can be used to develop the students' own group work skills for the future. Debriefing students with disabilities individually following group work can enable them to embed learning around further engagement in group work, as well as giving group work leaders and designers insights that will allow the refinement of group work for the future.

4   CONCLUSIONS

There are real barriers to group work at university for some students with disabilities and even students without declared disabilities may find group work to be anxiety-inducing. It is important that careful consideration is given to whether group work is needed as part of a learning experience, as well as how group work can be designed to make it more inclusive by reducing the barriers and challenges that it presents to students. Approaches that consider diversity and promote equitable participation by all students, enhance the culture of the learning environment and are more likely to lead to productive group interactions.

Engaging stakeholders, both staff and students, in the development of guidance for inclusive group work has revealed issues but also led to solutions. The approach of listening to both students and practitioners minimized the chances of this work being blinkered by prior knowledge and allowed multiple perspectives to be heard, collated and synthesized. However, a level of filtering of what was 'heard' by the project team was still inevitable. Re-reading of transcripts and notes at different points in the project has helped offset this to some extent and the process of trialing draft resources enabled the reinterpretation and refinement of insights that were gained earlier in the project.

Tapping into students' reflections on their experiences added authenticity to the findings. Engagement with the Disabled Students Group also enabled issues to be surfaced which might otherwise not have been discussed in the course of individual students taking part in a group work activity. Interviews with student-facing staff also gave a space for them to focus on group work and its challenges, which otherwise tend to come up on an ad-hoc basis when an individual student has a difficulty. Giving space allowed them to reflect on the multiple experiences they had with different groups and different tasks and to consider what had been good practice and what could be improved. Iterative testing of the draft guidance documents endorsed our findings whilst adding new emphases. Engagement with teams running group work revealed that even effective, well designed group work can benefit from adjustments to improve inclusion.

One potential weakness in the guidance documents produced is that it may be hard for staff to learn directly from students or to identify with their barriers without directly hearing their voices. To counteract this, future work aims to create recordings of students recounting their experiences for

staff engaged in designing and leading group work. These will also be available online (see link above).

Although this work aimed to enable the creation of more inclusive group work, particularly for students with disabilities, it has become clear that there is no one single design for group work that will suit all students. It is recommended that others design for inclusivity as the first stage of creating group work activities, to maximize the number of students who can participate without individual adjustments and to improve the experience for all. However, even with the most inclusive design, individual conversations with students with complex needs will still be needed to discuss their requirements. The authors recommend that staff designing or facilitating group work for higher education students should make opportunities to talk to their students with disabilities to explore the barriers and challenges they experience within their own institutional context.

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