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The Open Case as a setting for addressing challenges in small groups: Post-graduate computer science students' perspectives

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Abstract.

The Open Case is a collaborative, small group intervention which draws from the person-centred approach's "intensive group experience". It focuses on the identification and management of challenging job- or personal situations through a guided process of reflection and engagement within a small group setting and has been proven to be successful in various professional and academic contexts. The purpose of this chapter is to examine students' experience of the Open Case setting when introduced as part of a Master level course on communication for computer science students, as well as the effect thereof on their professional- and private lives. Specific focus will also be given to international students' reflections during this intervention. Methodologically, students' written self-reflections and online reactions are analysed via qualitative content analysis and systematically discussed. An outlook on further research and applications of the Open Case setting in contexts such as management learning, online communication, evoking motivation for change, and social inclusion of diverse people conclude the chapter.

Keywords: Open Case; person-centred communication; small groups; social skills; experiential learning; co-actualization; multi-cultural; qualitative content analysis;

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1 Introduction

Problem statement

Rapid innovation and transformation within the information and communication technology sector (ICT) demands that employees be highly performing, agile and able to manage the extreme job and time related demands associated with the successful completion of new projects. However, research has shown that the completion rate of “new” projects or innovative initiatives is comparatively lower than in other sectors (Hastie and Wojewoda, 2015). Research has suggested that over 70% of such projects fail to be completed within the first 12 months (Wright and Capps 2010). Of such, only 31% are completed on time and within budget (Nawi, Rahman and Ibrahim 2011; Wright and Capps 2010). Research indicates that people-issues, like insufficient managerial support, inter-personal conflict, unclear objectives and a lack of communication, range among the most prominent reasons for compromised or failed projects (Diedericks and Rothmann 2014; Hastie and Wojewoda, 2015; Standish-group, 2018). Collings, Mellahi and Cascio (2017) argued that individuals within the ICT sector are ill-prepared during their formal tertiary education to manage these “people related demands”.

Computer science curricula, that train members and leaders of ICT projects, focus on technical competency development and scientific issues and tend to neglect training in communication and people skills (Collings et al., 2017). ICT graduates are therefore technically competent to perform work-related tasks, however too often inept to manage the social or people-related demands at work (Lighthouse and Rezaia 2018). As such, computer science curricula at top-tier international universities have started to include at least one course devoted to developing people skills and communication competence, even though a single module could hardly accommodate all the necessary social competencies required to efficiently manage social demands. As such, it is crucial to design and present these communication courses to be as effective as possible, with sustainable positive influence on participants' capacity to communicate constructively in order to transfer these skills into the work-domain. Effective transfer of these skills to work-related settings after university could significantly increase the chance of projects to be completed on time, to specification and within budget (Nicholas and Steyn 2017; Lighthouse and Rezaia 2018).

Innovative methodologies therefore need to be developed and implemented during ICT students' tertiary education in communication in order to enhance collaboration and sharing. One such methodology is the Open Case setting (Motschnig and Ryback, 2016). The Open Case setting was developed by Motschnig and Ryback (2016), as a collaborative, small group

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intervention which draws from Rogers' (1960) Person-Centred Approach's "intensive group experience". It focuses on the identification and management of challenging job- or personal situations. The Open Case calls one to explore these experiences through a guided process of reflection and engagement within a small group setting and has been proven to be successful in enhancing the professional, inter-personal, and cross-cultural communication skills across various professional and academic contexts (iCom-team, 2013; Motschnig and Ryback, 2016). As such, the Open Case setting has been introduced as a core component of ICT students' communication training at numerous universities in Central Europe (e.g. University in Vienna, Austria, and the Masaryk University in Brno, Czech Republic).

In this context, the research reported in this article is targeted at the central question on whether the Open Case setting adds value to courses on Person-Centred Communication and, as a consequence, the training of computer scientists in the area of communication. Moreover, since several open-case sessions conducted so far included participants from different cultural and national origins, we're particularly interested in the influence that these sessions leave on such diverse participants.

Literature review

People tend to grow, if provided the proper atmosphere and conditions (Motschnig, 2016; Van Zyl and Stander, 2013). Carl Rogers (1957; 1961) proposed and researched three core conditions, congruence (or realness), acceptance (or respect), and empathic understanding, known to facilitate significant learning and growth. Building upon the wisdom of these core conditions, the Open Case is a workshop setting for collaboratively exploring experiences, perspectives, and solution strategies regarding real cases (challenge, problem, difficult decision, dilemma, etc.) from participants. While drawing upon some established settings such as open space (Owen, 2008), dialogue groups (Isaacs, 1999), person-centered encounter or self-experience groups (Rogers, 1970; Lago and McMillan, 1999), it is characterised by a set of unique features. Most important, its goal is to facilitate openness, respect and understanding (Rogers, 1957) within, between and across cultures by *collaboratively elaborating a particular case* proposed by a participant and experienced as relevant by a number of peers. This collaborative process is supported by a guideline based on the principles of active listening and facilitative sharing (Motschnig and Ryback, 2016). Personal viewpoints, emotions and its associative meanings/implications can openly be shared and reflected through a process of active dialoguing (Isaacs, 1999). These sessions are typically facilitated by experienced person-centred consultants/practitioners who lives values of authenticity, unconditional positive regard and empathy (Motschnig and Ryback, 2016).

If facilitated appropriately, the Open Case setting could aid individuals and teams to improve their dialoguing capacity and problem-solving abilities through moving from what is already known to states of improved collective understanding (Motschnig and Ryback, 2016) through

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an approach similar to social constructionism. The Open Case setting provides a unique platform through which new attitudes or solutions to complex problems can be co-formed.

In a nutshell, the Open Case employs small teams (3 to 7) and rather than brainstorming for new ideas, it emphasizes participants' personal reactions and experiences in approaching some real case of genuine interest to the participants. The Open Case setting was developed as part of the EU-project iCom (constructive international Communication in the context of ICT, www.icomproject.eu) and applied during iCom's practice-research workshops with industry (iCom-Team, 2014). The Open Case process (Motschnig and Ryback, 2016) has been successively applied and reflected during international scientific conferences and academic courses on communication. It is described in more detail in Section 2 below.

Main Research question

Given the introduction of the Open Case setting in various post-graduate computer- and service science masters programmes in Europe, the purpose of this chapter is to investigate the respective students' experience of the Open Case setting as part of a module on Person-Centred Communication. Investigating their experiences could systematically shed light on the potential function of the Open Case setting as a means to facilitate the development of person-centred communication skills in academic settings. Secondly, international students' perspectives on the Open Case setting will also be explored. This focus on nationally or culturally diverse participants is particularly relevant, since ICT-projects often cross-national borders.

To answer the research question, the following three specific sub-questions seem relevant:

- What do students reflect about their Open Case experience in their self-evaluation and online-reactions that they submit as (part of) their outcome of their course experience?
- What do students consider as their take away from participating in the Open Case setting?
- How do international students experience and fare with Open Case and which role does it have for them within the course on Person-Centered Communication?

2. Research Design

2.1 Research Approach

A multi-study explorative, inductive qualitative content analytic research design drawing from the person-centred paradigm was employed to investigate the main research question of this chapter. Computer science master students' written reflections on their experiences of the Open Case setting at the end of the course as well as online reactions were collated, and content analytically analysed and categories formed (Mayring, 2014). Two studies were conceptualised to address the research questions. *Study 1* took place within a largely localised cultural context during the summer of 2017. 18 students from the Czech Republic and

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Slovakia participated in the study. One international student from Russia took part in this study. Given the unique views of the international students in Study 1, **Study 2** examined international students' experiences of the Open Case Setting during the 2017 and 2018 summer term. Here, four international students' personal reflections on the Open Case setting submitted within two consecutive course instances were captured and analysed.

In order to explore, amongst others, how international students experience Open Case in relationship to the majorities, namely Czech or Slovak students, we decided to start the analysis with the category system identified in Study 1 and add additional categories to Study 2 when appropriate.

2.2 The Open Case Setting Intervention

Open Case Setting Intervention is aimed at facilitating socially significant learning, broadening participants' perspectives and problem-solving capacities, improving communication and listening, and, finally, connecting people within and across cultures by sharing experiences in a trustful atmosphere (iCom-Team, 2014).

Table 1: Handout holding the steps of the Open Case procedure (Motschnig and Ryback, 2016)

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OPEN- CASE

Handout 1st session

The **goal** of this session is **to present and collaboratively elaborate the case(s)**.

All confirm confidentiality in group!

You may want to use the following items to guide you through the session.

1. Find persons who hold the following functions:
 - Case-provider
 - Moderator
 - Interested peers
2. **Case-provider describes his/her case** and proposes 1-3 questions of interest.
Case-provider may want to express his/her personal **feelings** about the case, what moves them in the case.
The case is given a **name** and, if appropriate, a symbol/**image**/metaphor.
3. **Peers reflect their understanding** by trying to capture – in their own words – the essential meaning of what the case-provider has revealed.
Peers may ask questions regarding what has been said. It is essential that **peers stay with the case-provider and try to understand his/her message**. (e.g. You said you felt stressed, so do you still feel stressed now?)
4. **Peers may ask whatever is of interest to them** in the context of the case.(e.g. Did you already talk to the department head?) **Peers may share their reactions** to the case.
5. All try to identify the currents or “**forces**” at work in the given case.
 - Forces immediately related to the case (within the person and the system)
 - Forces from/to the environmentCan you name some of the forces and/or draw a diagram?
6. Based on what happened in this session, the **case-provider** reflects his/her **feelings and meanings** about the situation. In particular he/she identifies any **significant, highly important events** in the case, others listen actively.

Optional: Before going into a short break, teams briefly share the names & essence of the cases. If peers want to switch to different teams, they may do so.

To start the process, the facilitator suggests a procedure on “mining” cases and splitting up into small groups, depending on participants' interests. Participants are asked directly to suggest cases – issues, that matter to them personally, or they are invited to form small teams

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of two to four people to share ideas regarding potential cases. Case providers (a person who shared their problematic case and is actively listened to by peers, following a specific process guideline) are selected to share their cases in the group. Thereafter, cases are collected, given a short identifying phrase, and noted on a flipchart. Before (often better than after) small groups are formed, the handout with the Open Case guideline (*see* Table 1) is distributed and explained.

Participants can ask questions as needed. Then, cases (i.e. personal stories of interpersonal challenges or situations encountered in the context of IT projects which these participants experience) to be worked through are selected by the groups and every participant makes his/her own decision which case and respective small group to join. Then, each small group should find a place where they can sit in a circle and the noise distraction from other groups, etc. is minimal. Participants are informed how much time they have, 35 minutes being an absolute minimum, and an hour or slightly more being a decent time slot most of the time. In order to maximize participants' learning from the whole experience, the facilitator ends the workshop with a reflective phase in the large group.

2.3 Research method of study 1

Participants. 18 Master students of SSME (Service Science Management and Engineering), a specialization of the computer science masters curriculum at the Masaryk University in Brno, Czech Republic, participated in the first study. 13 of them were male, 5 were female, most of them working part-time besides their studies, typically in their twenties with a few in the thirties. There was one female international student from Russia, the others were of Czech or Slovak origin, approximately in equal shares. These two nations are known to have similar, though by far not identical cultural orientations. All students gave their consent that an anonymized version of their written materials from the course could be used for the purpose of research.

The intervention in context: The open case setting as introduced to students within their course on Person Centred Communication. "Person-Centered Communication" (PCC) is a lab course with a maximum of 20 participants held in three blocks, each lasting 1.5 days. It is an elective course in the Masters Study of Computer Science at the Masaryk University in Brno, Czech Republic.

General course goals comprised participants' acquisition of personal experience, skills, and background knowledge in situations of professional and everyday communication (such as listening, articulating, speaking in a group, conflict resolution, decision making, etc.). Participants were expected to build a learning community around the concern for better communication in general and with a focus on teamwork and team leadership, as these are core to computer science professionals.

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Consistent with an experiential learning style pertinent in the Person-Centered Approach, the strategy in the course design was to let students experience a flexible mix selection of didactical scenarios under the premise of unfolding a facilitative, safe climate in the class in which they would learn significantly. The face-to-face sessions started with discussing the reaction sheets posted as a reflection from the last block and sketching a tentative agenda for the unit on the whiteboard that the group could follow, adapt, or leave according to the present flow of needs, wants, and meaning. Care was taken to mix short theory inputs with reflection, exercises, group experience and, in the second and third block, an invitation to engage in Open Case sessions – the focal research interest in this chapter.

Online reflection and self-evaluation. In order to allow for continuing reflection and sharing between sessions, students were encouraged to submit free-text online reaction sheets after each unit (Motschnig-Pitrik, 2013, 2014a, b). These could be read by all participants and the facilitator who briefly addressed them in the beginning of each unit and let her and the whole group be influenced by them. In this way, students could co-create the course. At the end of the course, students were invited to submit an online self-evaluation in which they were expected to reflect on the ways they learned, contributed to the course, and identified what was their most important take-away and experience from the course. The self-evaluation was shared with the instructor only and there was some latency of one to three weeks between the immediate experience of Open Case and turning in the self-evaluation. Since the latter was deemed to provide a more balanced account of the phenomenon, it was selected to form the basis for the derivation of categories for the content analysis as described below.

Procedure of data collection and – analysis. A qualitative content analytic was employed to explore the self-evaluations and online reactions (after the 2nd and 3rd block of ‘lectures’) of 18 students who participated in the course. The best practice guideline of Creswell (2013) for content analysis was employed to explore the muted textual data extracted from the self-evaluations. First, all self-evaluations were read and sentences which referred to the open case experience were marked and copied into a Microsoft Excel TM worksheet for further analyses. If different sentences addressed different aspects of the open case experience, they were put into separate fields as to ease the association of categories for analysis. Second, one researcher clustered and categorized statements with similar meaning to construct preliminary categories. Preliminary categories were slightly generalized to better capture the similar statements / experiences. For example, ‘different opinions’ was generalized to ‘different perspectives’ and “useful to talk to other people’ became “sharing is beneficial”. Two statements were found that seemed not to warrant a separate category and thus were subsumed under the category ‘other’. If multiple categories were addressed in one field or sentence, both were associated with the respective field. The second researcher reviewed the preliminary categories and refined such through further exploration. Where incongruences or different perspectives on the classification of the statements between the first and second

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researcher occurred, they were noted as comments in the text, shared, and subsequently reconciled during a dialogue over skype such that, finally, consensus was reached.

Third, the preliminary categories extracted from clustering similar statements were used as the initial category system for categorizing students' statements from their reactions sheets. Recall, that those were written immediately or only a few days after the course experience. Interestingly, all categories derived from students' self-evaluation also fitted for categorizing most of the statements in students' reactions sheets. However, some statements in the reaction sheets were found to address more subtle and specific issues, such as hoping to be helpful, or the intensity of the open case. These statements were added to the category 'other' and increased its overall count of statements. Emerging new categories would be added to the list of categories and the self-evaluation checked again for statements that potentially would fit into the newly discovered categories. This procedure was also intended to increase the reliability of the category system as the documents were systematically re-read after new perspectives had appeared in the reaction sheets.

2.4 Research method in study 2

In order to respond to the third research sub-question: "How do international students experience and fare with Open Case and which role does it have for them within the course on Person-Centred Communication?" a second qualitative content analysis was conducted.

Participants

Given the unique experiences of the international student in Study 1, the second study was aimed at specifically sampling international students' experiences of the Open Case Setting. All international students of the most recent course instances (summer term 2017 and 2018) were selected to be included in the second study. In sum, there were four international students in the two most recent course instances of Person-Centred Communication. Two of them were male, stemming from India and the Dominican Republic, respectively, and two were female, one coming from Russia, the other from Norway, all of them in their early to mid-twenties to early thirties. It is important to note that three international students were in a group with five participants from the local population (Czech / Slovak).

Procedure of data collection and – analysis. Since we were interested how international students experienced the Open Case setting as part of the course on Person Centred Communication, one of the authors who was also the facilitator of the course, read all reactions and self-evaluations of the four international students and subsequently identified all statements that explicitly or implicitly addressed the Open Case setting. Thereupon she associated the statements with the categories identified in study 1 and would add new categories when appropriate. The same guidelines were employed as in Study 1. As a

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subsequent measure to enhance credibility and transferability, an independent co-coding process took place whereby the second author categorized the same data. Limited incongruencies were found between raters and resolved through dialogue mediated by skype.

In contrast to Study 1, only limited data pertaining to the Open Case Setting could be extracted from the self-reflections and online reactions of Study 2's participants. Participants formulated responses and feedback in a generic, implicit fashion with limited explicit mention of specific elements of the module, or Open Case setting.

Before discussing the findings of study 2, important context information is given for more accurate understanding: All international students were truly engaged and active throughout the course. In the course instance of 2018, all three international students had provided cases and two of them (one male and one female) even twice, such that five of the eight cases elaborated in that course were contributed by international students! Considering that, it was surprising that only few statements, precisely six, in the international students' documents explicitly included the word "open case" or "case". Rather, vast parts of the international students' reflections were formulated in a generic way, referring to the course as a whole as something they had never experienced before. Only rarely did they single out a particular element like Open Case or encounter group. Therefore in the content analysis it was necessary to also consider generic or implicit statements and estimate their applicability for the Open Case setting from the context and the actual course experience.

3 Findings

The data of Study 1 and Study 2 was analyzed, and findings presented in separate sections. The findings of the content analysis are presented in order of the frequency of their occurrence. Direct quotations of participants were labelled as S (when drawn from self-reflections) or R (when drawn from online-reactions)

3.1 Study 1's findings

From the data obtained for Study 1, 11 categories associated with the experiences of the Open Case setting could be extracted from both the reaction sheets as well as the final self-evaluations. Since the frequency of the appearance of some category gives an indication on how many students mentioned that category, the counts reflect an asset of the whole group experience and hence are considered relevant in the characterization of the perception of open case by participants. Table 1 provides an overview of the results of Study 1's content analysis.

Table 1: Categories and their respective counts in students' self-evaluation and reaction sheets

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Category (post-hoc)	Count Self-evaluation (N ₁)	Count Reactions (N ₂)
The Open Case as significant experience	9	9
Sharing personal stories is beneficial	6	5
Transformative learning through others' experiences	6	6
Significant experience from self-disclosure (Case Providers)	5	4
Preference of a small group composition	5	15
The Open Case Setting provides a platform for openness	5	6
Showing empathy and understanding	4	3
Feeling grateful for and inspired by the experience	4	5
Development of new skills and abilities	4	5
Establishing interpersonal connectedness	2	2
Critical of the Open Case Setting	0	1

3.1.1 Study 1: Characterization of feature-categories in the self-evaluation

The Open Case as significant experience (N₁ = 9; N₂ = 9)

The findings suggest that participants experienced the open case setting as a personally significant experience which had a lasting, formative effect on their lives. This category denotes experiences or events that were perceived as highly meaningful by participants. These events stand out from others through their subjectively perceived depth, meaning, emotion, or value.

Referring to (aspects of) the open case sessions as personally significant experiences was the most frequent characterization found in students' self-evaluations. Table 2 provides supportive quotations in relation to this category.

Table 2: Category 1 – The Open Case as a significant experience

Participant	Supportive Quotation
Participant 1S	“I guess the most significant experiences were the open cases, where couple of students opened themselves really and shared their personal problems. Meanwhile the rest of the group was trying first to clearly understand their situation and then very carefully come up with some advices.”

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Participant	Supportive Quotation
Participant 2S	“All open-cases were very intensive, strong, deep. I think it made the group really close and then open. It brought us together.”
Participant 3S	“I will definitely remember how refreshed, positive, and satisfied I felt after sharing my open case.”

Sharing personal stories is beneficial (N₁ = 6; N₂ = 5)

The second most frequently occurring category pertains to sharing personal stories as being beneficial for personal growth. Specifically, participants indicated that sharing personal stories aided in managing the proverbial emotional load and aided in developing an understanding that various challenging experiences are shared phenomena. The category further denotes participants' positive attitudes and experiences associated with openness, transparency and showing vulnerability. Some participants indicated that through sharing their personal stories with others, that others are experiencing the same and that they are not proverbially alone in these experiences. Table 3 provides examples of quotations extracted from self-evaluations and reactions.

Table 3: Category 2 – Sharing is beneficial

Participant	Supportive Quotation
Participant 4S	“I'm introvert and I don't really like to share these kind of stuff, but discuss it with others is most of the time beneficial I must say.”
Participant 5S	“The most important takeaway is probably the concept and principles of active listening and also a feeling that any problem I have which I have perceived as unique to me [is] actually shared by many people and it might be useful to talk with other people about my problems.”
Participant 6S	“I noticed, that it was quite good for me to present my ideas in slightly different way to different people.”

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Participant	Supportive Quotation
Participant 5R	“Through sharing my problem I learned that I am not alone with this problem and that these kind of feelings are not that special so it brought little more peace to my mind. “

Transformative learning through others' experiences (N₁ = 6; N₂ = 6)

The third most frequently occurring category pertained to experiences of transformative learning, whereby participants learned from and grew through others' challenges and experiences shared during the Open Case setting. Participants indicated that being exposed to different perspectives on similar personal challenges aided in developing new insights into dealing with own problems in the future. Specifically, it expanded their frame of reference. Table 4 provides examples of such presented by participants.

Table 4: Category 3 – Transformative learning through exposure of different perspectives

Participant	Supportive Quotation
Participant 7S	“I learned a lot about people's views on some issues they face and this experience is very valuable to me.”
Participant 8S	“I liked that I could see many different views and opinions, which I would never [have] realized if I didn't attend this course.”
Participant 9S	“There were about twenty of us and it was amazing how different could be people's views. Sometimes they were completely opposite and it is perfect.”
Participant 4R	“In the first place I'm taking with me from the second block becoming increasingly aware of the importance of the feeling of “I'm not alone in this” and the fact that similar things happen also to other people”
Participant 5R	“I would also like to thank for the opportunity to be the case-provider. It was a great experience and more over it really did help me. Thanks to questions and similar experiences from classmates, I could sort my ideas and feelings”

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Significant experience from self-disclosure (Case Providers) (N₁ = 5; N₂= 4)

The fourth most frequently occurring category pertained to the positive experiences of case providers associated with systematic self-disclosure during case presentations. Participants who acted as case providers (five participants had provided cases) indicated that sharing personal experiences or “stories” were positive and significant experiences which resulted in various practical, cognitive and emotional benefits. Case providers indicated that sharing personal stories increased their own understanding of the problem and resulted in more personal insight. Table 5 provides examples of quotations in support thereof.

Table 5: Category 4 – Significant experienced of self-disclosure by Case Providers

Participant	Supportive Quotation
Participant 10S	“I contributed mainly in two ways. One was by sharing my experiences and knowledge, participating in group dialogues, and providing two open cases. [...] I will definitely remember how refreshed, positive, and satisfied I felt after sharing my open case”
Participant 11S	“... and open case [...] were most useful practices for me. Even though I do not consider myself as most talkative or extrovert person I've tried to share my most significant experiences which bothered me”
Participant 6R	“I am glad that I shared my thoughts and concerns about my self-estimation problems. Open case format gave me a nice "framework" how to understand a problem quickly to a certain depth [...]. I learned that I am not alone with this problem and that these kind of feelings are not that special so it brought little more peace to my mind.”
Participant 15R	“Most intensive experience for me was open case discussion where I shared my problems. It was very interesting to see how others are able to use some formal approach to understand and discuss some problem in an effective way. “
Participant 17R	“I am not sure how much it affected others but it definitely showed them that everyone can "open" to the group and nobody will judge them”

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Preference of small group composition (N₁ = 5; N₂ = 15)

Predominantly, the findings showed participants' preference for small group compositions during the Open Case setting. Within the larger groups, participants - especially those more reserved – felt that their voices were not heard or being 'dominated' by discussions of their more extroverted counterparts. In the smaller group sessions, participants could freely share their thoughts, feelings and experiences. Table 6 provides extracts from participants pertaining to their preference for small group interactions.

Table 6: Category 5 – Preference for the smaller group composition

Participant	Supportive Quotation
Participant 12S	“ ... there was a lot of time spent with topics not relevant for me and in large groups, meaning only the most extrovert people were talking. On the other hand, I enjoyed dialogs and open cases in small groups.”
Participant 13S	“Being very shy and strong introvert, I have only contributed to the dialogs in these small groups.”
Participant 14S	“I think that in small teams I spoke and elaborated more that in class as whole. “
Participant 1R	“I like smaller groups, I can be more open. But I also feel that we know each other better and better and we can be more open. Sometimes the topics are quite strong and deep, I appreciate that and I thank to the people that share such things. Then I also feel I can share more and be more open.
Participant 2S	“I think working in smaller groups was better and made the class more enjoyable. I felt more present and heard especially due to less people having to say their thoughts at once. I am naturally more susceptible to suspend my thought instead of bursting them out and smaller groups gave me more opportunities to articulate my ideas.”

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Participant	Supportive Quotation
Participant 3S	‘In this block I liked that, in part, we worked in small groups. [...] The main benefit was that small group work made the seminar more dynamic and effective, because we elaborated the problem in a small group and subsequently [...] we also recalled the theme’s essence quickly in the whole large group. This way of leading the course is most attractive for me and I can imagine that the coming block could look similarly.’

The Open Case Setting provides a platform for openness (N₁ = 5; N₂ = 6)

Another predominant category relates to the extent towards which the Open Case Setting provided a platform through which individuals could openly discuss, and share personal stories without judgement or prejudice. Participants indicated that the Open Case Setting provided for an opportunity for others to share experiences, problems or challenging situations which would not normally be shared. It created an environment where individuals could openly talk about, share and relate to the personal stories of others. Table 7 provides extracts from participants in support of this category.

Table 7: Category 6 – A platform for openness

Participant	Supportive Quotation
Participant 1S	“Being able to communicate with other people in very open way was most interesting for me, because I was able to hear different opinions or even different discussion and argumentation techniques regardless of topic.”
Participant 16S	““...I guess the most significant experiences were the open cases, where couple of students opened themselves really and shared their personal problems.”
Participant 17S	“What I liked most in this course was the work in small groups where the discussions were more open”

Showing empathy and understanding (N₁ = 4; N₂ = 3)

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The findings showed that some participants valued their own (and others) empathic reactions to and understanding of the personal problems or challenging experiences shared by case providers. Empathy and understanding were present during the small group encounters. Table 8 highlights supporting quotations for this category.

Table 8: Category 7 – Showing empathy and understanding

Participant	Supportive Quotation
Participant 13S	“I think that, especially in open cases, we were sensibly empathic to the case providers or at least we tried hard to be.”
Participant 14S	“I was also surprised by [the] amount of empathy of other people, when we had some activity within smaller groups.”
Participant 7S	“I was never the case provider and I am not sure, whether I could do it, but I really appreciate that someone did”
Participant 18R	[During the open cases, a] “couple of students opened themselves really and shared their personal problems. Meanwhile the rest of the group was trying first to clearly understand their situation and then very carefully come up with some advices”

Feeling grateful for and inspired by the experience (N₁ = 4; N₂ = 5)

Several participants expressed gratitude for the opportunity to participate in the Open Case Setting. Participants expressed gratitude relating to the openness of the case providers, the personal growth and learning which took place during the experience and the new skills which they developed. Table 9 provides extracts in support of this category.

Table 9: Category 8 – Gratefulness for and Inspired by the Open Case Setting experience

Participant	Supportive Quotation
Participant 7S	“Also [my] experience with open case was something really new, unusual, and different for me. I was never the case provider and I am not sure, whether I could do it, but I really appreciate that someone did”
Participant 18S	“On the whole, I’m taking with me the splendid experience that I could be part of this group and

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Participant	Supportive Quotation
	I think that every such experience moves one forward”
Participant 9R	“... I hope I will take this motivation with me for my future learning ..”

Development of new skills and abilities (N₁ = 4; N₂ = 5)

A few participants indicated that new skills and abilities (such as active listening) were learned which could aid in enhancing communication between parties, build positive relationships with others and to identify and solve problems more efficiently. Table 10 provides extracts in support of this category.

Table 10: Category 9 – Development of new skills and abilities

Participant	Supportive Quotation
Participant 8S	“It’s really interesting and curious for me how people can effectively and with pleasure communicate with themselves and others once they learn the right skills”
Participant 18S	“The most important are those things that I really want to try in practice or I have already tried such as active listening and then those moments when I realized: that is something”
Participant 6R	Open case format gave me a nice "framework" how to understand a problem quickly to a certain depth [...].

Establishing interpersonal connectedness (N₁ = 2; N₂ = 2)

Two participants indicated that the Open Case setting aided in the development of interpersonal connectedness. The findings suggest that these students found that as a result of the Open Case setting, the group was able to “grow closer together” and to form deeper relationships. Table 10 provides supportive quotations for this category.

Table 11: Category 10 – Establishing interpersonal connectedness

Participant	Supportive Quotation
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Participant	Supportive Quotation
Participant 15S	“I think it was really nice that people shared their private problems with us in open cases but also in group discussion/dialog, I think it was really significant for us as a group to become more close.”
Participant 14R	“All open-cases were very intensive, strong, deep. I think it made the group really close and then open. It brought us together.”

Critical of the Open Case Setting (N₁ = 0; N₂ = 1)

One participant reflected critically upon the experience. The participant remarked: “The fact that I really had very hard times to hold back and not openly say what I thought, was the main reason why I didn’t like the activity.”

3.2 Study 2’s findings

The category scheme from Study 1 was used as the primary typology for the categorisation of muted textual data obtained for participants in Study 2. Additional categories were extracted where data could not be categorised into the original typology. The findings showed that international students shared similar experiences as their local-cultural peers in Study 1. However, some deviations did occur.

Table 12 provides an indication of the prevalence of international students’ experiences of the Open Case setting in relation to the experiences of those who participated in Study 1.

Table 12: Presence (✓) or no mention (-) of categories identified in study 1 by four international students participating in one of two consecutive course instances.

Category (from study 1)	Student A	Student B	Student C	Student D
The Open Case as significant experience	-	-	-	-
Sharing personal stories is beneficial	✓	✓	✓	✓
Transformative learning through others’ experiences	✓	✓	✓	✓
Significant experience from self-disclosure (Case Providers)	✓	✓	✓	-
Preference of a small group composition	-	-	-	-
Preference for the large (encounter)	✓	implicit	✓	-

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Category (from study 1)	Student A	Student B	Student C	Student D
group				
The Open Case Setting provides a platform for openness	✓	✓	✓	✓
Showing empathy and understanding	✓	-	✓	✓
Feeling grateful for and inspired by the experience	✓	✓	✓	✓
Development of new skills and abilities	✓	-	-	-
Establishing interpersonal connectedness	✓	✓	✓	✓
Critical of the Open Case Setting	-	-	-	-
Understanding across cultures	✓	✓	✓	-

In contrast to Study 1, the findings showed that none of the international students explicitly stated that the Open Case setting was a significant experience. None of the participants in Study 2 indicated a preference for small group compositions. Likewise, none of the international students of Study 2 were critical of the Open Case Setting. Further, only one student indicated that he/she developed new skills or abilities during the Open Case Setting

In coherence with the findings of Study 1, all international students shared the sentiments of the local students in that *sharing personal stories was beneficial* for personal growth and development [“Sitting together and sharing the thoughts which bothers you in the midst of people who do not judge you is bliss” Student B]. Further, all participants in Study 2 mentioned experiences of *transformative learning* through actively listening to and engaging with the personal stories of others [“We as a group, learnt a lot from one another when we shared our thoughts and troubles, being nice to each other without judging one another. The diversity in the group ranging from our age, ethnicity was a great helping factor to understand how things do change over time” Student B]. Similarly, acting as a *case provider and sharing a personal problem was a significant experience* for participants in Study 2 [“It felt good to be so open and share personal things, because often I shut down and don't show my emotions at all if I don't feel comfortable in a situation” Student A]. Further, all international participants indicated that the *Open Case Setting provided a platform for openness* [“In [the open case] I felt safe and comfortable to share” Student D], and *felt grateful and inspired by the experience* [“I would like to heartily thank all participants for their openness, free sharing views and ideas brought into our dialogues” Student B]. All international participants felt that the Open Case setting aided them to *interpersonally connect with other participants* [“We started doing some activities and sharing things between us, and for me personally this class helped me to know and meet new people, cause as an exchange student in my first semester I didn't have the chance to meet a lot of people, but as we shared a lot of experiences and talked about things that had happened in our lives we made a kind of connection (well, this is how I felt it)” Student C], and to develop *empathy and understanding of others' problems*

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[“Also empathic understanding was present and I feel like I really connected with most of the people in the course (mostly the ones that I got to talk to during pair exercises)” Student D].

The international participants differed between each other and the participants in Study 1, only in respect of their *preference for the large (encounter groups)* rather than the small group composition. [“I found the encounter groups the most significant experiences during the course, because I felt like people were really sharing things that are very important and emotional to them” Student A] and that it aided them to develop an *understanding of others across the different cultures* [“The most important thing for me was to connect with people from different cultures. I feel that connecting on an emotional level and feeling accepted with different people in general helps decrease any prejudices and makes it easier to overcome differences in views and values” Student C & “I very appreciated talking about cultural differences. For me it is really rare to talk with some foreigners and a fortiori in such a confident atmosphere. And not only the hand-to-hand contact and talking but also sharing experiences with other nationalities” Student B]

4 Discussion

The purpose of this chapter is to examine ICT students' experience of the Open Case setting when introduced as part of a Master level course on communication for computer science students, as well as the effect thereof on their professional- and private lives. Specific focus will also be given to international students' reflections during this intervention. A multi-study explorative, inductive qualitative content analytic research design was employed to analyse data obtained through participants' written self-reflections as well as online reactions on their experiences of the Open Case setting. The results from Study 1 showed that individuals from the local cultural context (Study 1) experienced : (a) the Open Case setting as a significant experience, (b) sharing personal stories is beneficial to personal growth and development, (c) Transformative learning through others experiences, (d) Case providers found personal self-disclosure to be cathartic, (e) A preference for small group compositions, (f) the Open Case Setting as a valuable platform for openness, (g) empathy and understanding for others problems, (h) being grateful for and inspired by the Open Case Setting, (i) developed new skills and abilities, and (j) interpersonal connectedness to their fellow students. Study 2 found that international students shared similar experiences to their local student peers, however did not specifically indicate that the Open Case was a significant experience, nor showed preferences for the small group interactions. Participants from Study 2 did, however, indicate that the Open Case Setting aided them in developing an understanding of other cultures.

From the findings of *Study 1* it is evident that students tend to take with them the awareness that sharing in a trustful, open atmosphere can be an effective means to move forward in solving their personal problems. Moreover, they strengthen their appreciation and skill of active listening and keeping back judgment and early advices. The Open Case Setting provided a means through which individuals could share and collectively explore solutions to

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complex personal problems. Through active engagement, individuals experienced that sharing personal stories with the group could aid them in not only alleviating the emotional burden associated with the problem, but also provide unique insights as to how these situations could be resolved. Further, individuals who participated in the Open Case Setting, developed an understanding that various personal problems are shared experiences.

Drawing from the collective wisdom of the group, even participants who did not share personal problems experienced transformative learning. Participants indicated that they could learn from and grow through the experiences and challenges which others presented with. In other scenarios, participants felt that being exposed to different perspectives on similar problems aided in developing unique insights into how similar problems could be approached in the future. Research shows that transformative learning experiences aids individuals to expand their current world view or perspective through developing a deeper understanding of the self, an active revision of personal believe systems and changes in behaviour (Cranton, 2006). The Open Case setting could therefore be employed as a means to contribute to the personal- and social development of participants through expanding their world-views.

Similarly, Case Providers (i.e. those individuals whom shared personal stories, challenges or problems with the group) found the systematic self-disclosure of their problems to the group, cathartic. Through sharing their personal stories, case providers reported that new insights into their problems were developed and that the emotional load associated with these problems were unbundled. Through sharing and through active reflection from the group, case providers were able to increase their own understanding of the problems and develop more self-insight in the process. This is in line with one of the fundamental principles of person-centered groups (Rogers, 1970) and talk-therapies: self-disclosure leads to the alleviation of negative emotions associated with the perceived problem (Trotter, 2015). When individuals are afforded the opportunity to share personal experiences in group-based therapy or development sessions it aids in normalising the experience, builds positive self-worth and develops stronger connections between participants (Farber and Sohn, 2001). It also aids in increasing self-understanding and self-awareness as well as enhances self-reported personal improvement over time (Farber and Hall, 2002; Kelly, 2000). It is therefore not surprising that in the Open Case setting, where Case providers share their personal stories, similar experiences were reported.

Participants also indicated that sharing was more beneficial in smaller groups as it created a sense of enhanced intimacy. Smaller groups provided more psychological safety, as opposed to the larger (encounter) groups. In the smaller groups, individuals could freely express, share and reflect upon their own and others experiences without the fear of repercussions. Research shows that smaller group engagements or therapy is more effective than larger groups in that each participant has an opportunity to express themselves and to be heard (Foulkes, 2018). Smaller groups provide for increased opportunities to learn with and from other members and their experiences, whereas larger groups bear a larger risk to proverbially drown out the

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voices of the less expressive or self-assured (Burlingame, Fuhriman, and Johnson 2004). Further, the social multiplier effect (i.e. the extent towards which high levels of experience of one individual can have spill over effects onto the group) has also been shown to be more present in smaller groups than in larger ones. As such, the learnings of more experienced individuals could be more efficiently transferred to the group in these smaller settings (Golberstein, Eisenberg and Downs 2016). These smaller groups also provide a platform through which participants could openly discuss and share personal stories, problems and issues in a psychologically safe environment. Participants indicated that the Open Case Setting created a safe platform through which others could share relatively 'private' information, in an open and constructive manner. This occurred as a result of the established respectful, open and empathic climate by the facilitator and is a necessary precondition for significant, transformative learning to occur (Rogers, 1961, Motschnig and Nykl, 2014).

Further, participants indicated that their personal stories were welcomed by empathic understanding by others. Through active listening, genuine sharing, non-judgemental communication and concerted efforts to understand, participants in the One Case Setting developed and showed genuine empathy for those who shared their cases. Similarly, the participants' predominant feelings of gratefulness for the experience signals that they take with them something they considered significantly constructive. Their consequent positive feeling might be interpreted as a sign of personal- and social growth (Rogers, 1961; Motschnig and Ryback, 2016).

Participants also indicated that new skills and abilities were learned through the Open Case setting which could potentially lead to improvements in interpersonal communication, more efficient conflict management skills, and the ability to establish positive relationships with others as the development of group-based problem-solving abilities. Specifically, some individuals indicated that the Open Case setting added them in "Growing closer together" as a group and to connect to others in a more straightforward way.

Although positive experiences were predominantly reported, one individual did indicate frustration with the Open Case setting intervention. This indicates that the Open Case setting may not be applicable to every individual, in every scenario. It is therefore important to appreciate personal differences when an Open Case setting intervention is implemented and to individually manage the personal preferences of participants as part of the process.

The international participants of **Study 2** presented with similar experiences as those who participated in Study 1. Albeit a large overlap, the international students did not explicitly mention that the Open Case setting was a significant experience, nor that they preferred the smaller group settings. Here, participants were less likely to single out the specific impact of Open Case in their reflections. Intriguingly, however, some international students, unlike students of the Czech/Slovak majority, liked the large group most, potentially due to its larger scope and thus potential to reach out to colleagues. Another explanation of international

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students' feeling attracted to encounter the whole group might be the fact that it is the less shy, the more outgoing students who decide to study in a different country and thus appreciate the greater richness of perspectives voiced in the large group. More research on this phenomenon needs to be done to confirm or disconfirm this observation and its consequences for working across nations and cultures.

Whilst controlling for individual differences and some deviations in personal preferences, the only major difference between Study 1 and Study 2 was that international students indicated that the Open Case setting aided them to develop an understanding of others across the different cultures. The Open Case setting aided these individuals to challenge and overcome the distance that they may have felt when just superficially relating to their host cultures. It aided them in establishing deeper relationships and to connect with individuals from the host culture on a person-to-person level. Although the same was not explicitly mentioned by the participants of Study 1, it is presumed that individuals from Study 2 were more sensitive to the cultural differences between them and the local group as they are new to the established cultural contexts and patterns. As such, the cultural connecting value and potential of the intervention should be more extensively investigated in future studies.

5 Future directions

Albeit various limitations are present in the current study due to sample size, the nature of the post-hoc analysis, the specific academic context and the quality of some self-reflections, the Open Case setting does prove to be a valuable experience for computer science students. Notwithstanding the generic methodological improvements associated with the current design, future research should focus on evaluating the effectiveness of the Open Case setting from a mixed-method longitudinal perspective, where self-reported experiences are quantified and tracked over time.

Several specific areas are suggested for future research:

1. The application of the Open Case setting in networked management learning should be explored;
2. The effect within and across organizations should be evaluated
3. Future studies should aim to develop an online version of the Open Case setting to evaluate the effectiveness within virtual and globally distributed teams.
4. The Open Case setting could further be used to explore the connection between the Person-Centered Approach and positive psychology
5. The connection with motivational interviewing and application for cultural integration should be investigated
6. The effect of the Open Case setting on ICT-related project completion / success should be evaluated.

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6 Conclusion

The results of this study show the value which computer science -students attached to the Open Case setting as part of a masters course on person-centered communication. Students found the Open Case setting as personally meaningful, it aided in facilitating personal growth and development, transformed their perceptions, and helped to develop a deeper, empathic understanding of the problems of others. The Open Case setting was also seen as a powerful tool to aid in the construction of personal relationships (across cultures). The intervention is valuable vehicle to aid individuals to grow and develop through transformative learning practices. It could aid students to develop better relationships amongst themselves, to explore problems from different perspectives and to develop new skills and abilities to effectively cross-cultural boundaries.

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