

The DITE impact report



Erasmus+ KA220 Cooperation partnerships in Higher Education

2021-1-PL01-KA220-HED-000031129

PR4. Report on the impact of the training on the development of skills and competences.



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Executive Summary

This document constitutes the third tangible deliverable of the PR4 in the DITE project. It is led by the Global Impact Institute. It is key to ensure that all stakeholders (involved and beyond) receive valuable feedback on the impact of the activities, also introducing the culture of continuous improvement. **PR4 is the key PR in terms of providing accountability by reliable evidence of the effects of the training courses themselves.** Due to the rigid scientific approach provided by the GII (successfully implemented in other context), the results form a sound basis to assess the usefulness of the training courses beyond the sheer qualitative perception of participants. PR4 **is completely transferable** to other projects on internationalizing TE as well as other academic areas due to its clear and rigid methodology, **based on pre-to-post-to-postpost analysis of four indicators (openness, attitudes, learning outcomes and trends) and a set of post-only change perceptions.**

As to be expected, results were stronger for attitudes, trends and learning outcomes than for personality traits, and inhouse participants benefitted more than TTT participants.

The DITE trainings have made more than 9 out of ten participants to be more comfortable with discussing the opportunities and challenges of teaching an international classroom with their peers (91.2%), like the thought that somewhere in this world other people may be participating in an activity like this (91.8%), and most importantly have better tools to explain to their peers what Internationalisation of school education entails. This last result is arguably the most relevant because the DITE project wants to achieve long-term impact and how can that be achieved better than by giving participants the tools at hand to motivate other teachers to engage in internationalisation?

From an impact perspective, **the DITE project has achieved all 6 intended project goals** as proven by the measurable results on each of the related impact indicators.

It has involved a large number of future trainers and participants across all four universities. It has provided the trainings in a way that produced measurable positive impact results. A striking result is that in many **aspects the long-term effects were as good or even better than the short-term impacts.** This was confirmed by the stable opinions on personal change by the participants in the post and postpost surveys.

Moreover, participants feel very confident to carry the DITE ideas further into their communities.

Not the least, the testimonials are proof of the immensely positive effect of the project on the participants.

List of Acronyms

DITE	Diverse Internationalisation of Teacher Education
EDI	Equality, Diversity, and Inclusion
HE	Higher Education
HEI	Higher Education Institution
IaH	Internationalisation at Home
ILO	International Learning Outcome
ITE	Internationalisation of Teacher Education
PR	Project Result
SDG	Sustainable Development Goal
TE	Teacher Education
ToC	Theory of Change

1. INTRODUCTION TO DITE

1.1. What is the DITE Project?

Delivered between November 2021 and October 2024, the DITE project is concerned with the **diverse internationalisation of teacher education (DITE)**: that is, with those elements within teacher training provision that prepare teachers to educate future generations of school students to become global citizens, in a globally interconnected, culturally diverse world. Focused on the education of secondary school teachers and guided by a recognition that **teacher education (TE) is one of the least internationalised arenas of Higher Education (HE)**, the goal of the DITE project is to support the engagement of future teachers with international perspectives.

It aims to address and promote the value of those features of teacher education that ensure the internationalisation of this critical area of HE. Centred on the need to enable future teachers to develop competences that engender, and help their students to develop and demonstrate, a global mindset, **the DITE project prioritises the incorporation in teacher education of learning grounded in 'internationalisation at home' (IaH)**. That is, it focuses centrally on the inclusion in teacher training delivered on campus within Higher Educational Institutions (HEIs) of international and/or global content intended to 'develop international and intercultural knowledge, skills and attributes' (UUKi Outward Student Mobility Network 2024, p.3), rather than (just) on internationalised teacher education achieved through outward mobility to overseas partner institutions.

It recognises moreover **the connectivity between the internationalisation of teacher education (ITE) and the need to prepare future teachers to engage with and advocate for better understandings of cultural diversity and inclusion, in the classroom and in society, in the interests of social justice.**

To learn more about the DITE project and results developed so far, please visit our [website](#).

1.2. Why is DITE Important?

Higher Education, across and beyond Europe, is increasingly committed to and shaped by proactive engagement with the United Nations Sustainable Development Goals (SDGs).

Figure 1 UN Sustainable Development Goals. Source: <https://sdgs.un.org/goals>



Within the SDGs, Goal 4, focused on ensuring inclusive and equitable quality education for all, is a major driver for HE strategy and policy. Within Goal 4, target 4.7 provides critical context for the incorporation of internationalisation into teacher education in HEIs. Target 4.7 is intended to ensure that by 2030, all learners '**acquire the knowledge and skills needed to promote sustainable development**'. It includes **education for global citizenship and for the appreciation of cultural diversity** as routes that allow such learning to happen. And it identifies teacher education as a specific mechanism whereby education for global citizenship is enabled <https://sdgs.un.org/goals/goal4>

Viewed within the framework of the SDGs, and specifically SDG4 and target 4.7, the relevance and significance of the DITE project is clear.

- ❖ The project is centred on the internationalisation of teacher education (ITE), and on the impact that incorporating internationalisation into teacher training makes on secondary education, secondary teachers, and secondary school students.
- ❖ It recognises that secondary teachers play a critical role in equipping future generations with skills, capabilities, and perspectives geared to the needs, demands, values, and trends (demographic, societal, political, economic, cultural) of a diverse, globalised world.

- ❖ It understands, likewise, that embedding international elements into secondary teacher education positively supports wider societal wellbeing, by enabling teachers to further enhance their own and their students' awareness of what cultural diversity and inclusion look and feel like, and why attention to and respect for cultural difference(s) matters.
- ❖ It positions the internationalisation of teacher training as a socially responsive practice, whose impact is far-reaching and whose implementation is overdue.
- ❖ It aligns thereby with wider HE work grounded in social engagement and responsibility, which, through activities with internationalised dimensions, addresses societal challenges or requirements. Such work is mapped in the recent *Internationalisation in Higher Education for Society (IHES)* project, coordinated by Palacký University Olomouc <https://ihes.upol.cz/>.
- ❖ It provides evidence-based, pragmatic materials and guidelines to those at the forefront of teacher education, to facilitate the implementation of ITE.

1.1.1 Project Objectives

The objectives of the project are to:

- ❖ Understand how the internationalisation of teacher education (ITE) is achieved and implemented in countries represented by the project consortium, by collecting examples of good practice and undertaking interviews with persons actively participating in the education of future teachers.
- ❖ Gather information intended to serve as a basis for training sessions and events for academic teachers in project consortium institutions who teach students of teacher education (TE).
- ❖ Formulate a more general model and guidelines for implementing DITE in other institutions.
- ❖ Initiate a DITE network consisting of organisations from within and outside the project consortium engaged with the internationalisation of teacher education.

2. Relevance of this report

PR4 as such is key to ensure that all stakeholders (involved and beyond) receive valuable feedback on the impact of the activities, also introducing the culture of continuous improvement. It also provides insights into the impact of the training courses on the development of lecturers and students regarding greater international awareness and competences. PR4, furthermore, identifies options for improvement of the training courses and thus inform PR5 on conditions for an ideal model.

To achieve these aims, the impact report is essential since it forms the basis for the following two tasks (online survey and report on findings).

The impact report is based on the following aspects:

1. **Target groups for the final report:** without a clear definition of the target groups, no meaningful impact report can be developed since the final audience define the purpose and thus the methods needed.
2. **Expected impact(s):** since the concept (see below) is based on the idea of a Theory of Change, the most relevant basis for a concept were the intended impacts, against which the activities had to be judged.
3. **Transferability:** since the DITE project aims at producing results that can be used across the spectrum of HEIs in Europe and hopefully beyond, the concept had to make sure that also the results (and the methods to measure the results) are transferrable.
4. **Indicators:** ultimately, every impact report needs to be based on (best quantitatively) measurable indicators.
5. **Theory of Change (ToC):** the ToC brings the different elements, especially impacts, activities, and indicators together to allow for an objective and adjustable way to assess outcomes of the project against its aims, especially in a monitoring approach, i.e., constantly at different stages of the project to allow for improvement.
6. **Methods of assessment:** the indicators have to be concretely assessed, and the data analysed. For this, the concept had to provide precise ideas and approaches.

2.1. Target groups

PR4 addresses all target groups of DITE. It provides TE departments at HEIs, International Offices and HE leadership as well as TE students with valuable insights into the concrete effects and impact of such TTT and in-house activities. It also informs the target group outside HE (schools and organisations/networks such as eTwinning, Ministries of Education and related bodies) about the concrete added values of such activities.

Other target groups are within the project: it provides the participants themselves with a reflection on the group-wide results (due to anonymity and privacy no individual performance will be identifiable) thus providing food for thought in the focus groups for students.

PR4 also provides the partners with clear indications as to the right direction of training courses and especially SGroup for the core design of the DITE model (PR5).

2.2. Expected impact

PR4 is the key PR in terms of providing accountability by reliable evidence of the effects of the training courses themselves. Due to the rigid scientific approach provided by the GII (successfully implemented in other context), the results form a sound basis to assess the usefulness of the training courses beyond the sheer qualitative perception of participants.

This increases the credibility and consequently influence of DITE in the wider context. Furthermore, PR4 is instrumental for the sustainability of DITE since it provides guidance towards possible adaptations in the training courses which in turn will influence the model under PR5.

2.3. Transferability potential

PR4 is completely transferable to other projects on internationalizing TE as well as other academic areas due to its clear and rigid methodology. Of course, other subject areas or foci may need adaptations in the respective indicators, but the core methodology is fully replicable and therefore the evaluation method itself is 100% transferable.

Beyond this, PR4 substantially adds to the transferability of the DITE project as such and PR2, 3 and 5 since its scientific analysis will provide guidance to allow for contextual adaptations in other follow-up or spinoff activities.

2.4. Methods, indicators, analysis

The project uses the following general indicators and benchmarks for the assessment of PR4:

Area of assessment	Indicator	Benchmark
Input	previous PRs analysed	Yes
	matrix for impact developed	yes
Output	training courses analysed	8
	participants evaluated	52
	size of the report	10pp.
Impact	Downloads of the PR4 report	100
	Likes on the relevant LinkedIn post	20

Table 1 Indicators for PR4

The Global Impact Institute uses a model based on a combination of 4 pre-to-post indicator types and post-only items:

A) Personality Trait

We assess the development of the open mindedness using the scientifically validated Big Five Inventory Trait "Openness" which has proven to be successful as a serious measure of internationalization in various EU projects (SUCTI, SUCTIA, IHES). To this end, we use the following items (the English version is the reference scale):

I am someone who ...

- | | |
|---|--|
| 5._____ Is original, comes up with new ideas | 30._____ Values artistic, aesthetic experiences |
| 10._____ Is curious about many different things | 35._____ Prefers work that is routine |
| 15._____ Is ingenious, a deep thinker | 40._____ Likes to reflect, play with ideas |
| 20._____ Has an active imagination | 41._____ Has few artistic interests |
| 25._____ Is inventive | 44._____ Is sophisticated in art, music, or literature |

The scale for BFI is:

1	2	3	4	5
Strongly disagree	Disagree a little	Neither agree nor disagree	Agree a little	Strongly agree

Apart from this tested and validated scientific aspect, we also include scales that have been developed based on experience in other EU projects. All the following scales were tested with professors of teacher education at the partner universities which could leave comments and suggestions on changes or problems of understanding. Based on the feedback, only one item had to be changed (in item 8 of the learning outcomes, the "which" was substituted by a "whose").

B) Perceptions on internationalization

This scale has been tested and validated in various projects but has been adapted to the specific needs of TE. Consequently, the new scale will be tested with a small sample of professors and students of TE who were not involved in the training courses and where necessary, adaptations were made.

The items for attitudes towards internationalisation are as follows (blue are turned-scale items):

1. Schools should receive more pupils on international exchange programmes.
2. Teachers should encourage pupils to have an experience abroad.
3. **The costs of internationalising school education exceed the benefits.**
4. Teachers should receive training regarding the challenges of internationalisation.

5. It is not enough to know languages in order to understand the needs of pupils from abroad.
6. International pupils are harder to teach than local pupils.
7. If you have been on an exchange abroad, you understand international pupils better.
8. Experiences abroad should be compulsory for all teachers.
9. Many international pupils do not make enough effort to integrate into our way of doing things.
10. Becoming more international should be a priority for all schools.
11. Costs of international pupils are higher than their benefits.

Also, the following four statements will be included as results from the PR1 report on the status of internationalisation:

12. Internationalisation of Teacher Education will never be relevant for the future career of a teacher.
13. Internationalisation of Teacher Education benefits from teachers having better language skills.
14. Internationalisation of Teacher Education should focus mostly on mobility.
15. Internationalisation of Teacher Education requires more money than it is worth.

The scale for the attitudes towards internationalisation is:

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

C) Global trends

Additionally, we want to assess the relation that teachers see between bigger global trends and their work in class. We use two indicators for this which have also been used successfully in the SUCTIA project (the individual scale is attached to the indicator):

How much do you think the changing global demographics affect internationalisation in higher education?				
1	2	3	4	5
Not at all	To a very small extent	To some extent	To a quite large extent	Extremely

How much do you think that current global trends are intertwined?		
1	2	3
not at all – they each stand on their own	to some extent – some are connected, some are not	extremely – each is influenced somehow by the others

D) Learning outcomes

For each aspect of the training courses, the trainers will define learning outcomes (LOs) related to the six objectives, usually based on replies to a statement on a 5-point Likert scale. Existing and tested LOs will be cross-checked for their usefulness and applicability in this project and new ones developed where necessary (those again tested as under b.).

The following items are suggested as a basis of discussion for the next steps of the PR4.

1. The influence of artificial intelligence and big data on us in general and internationalisation in particular is over-estimated.
2. Climate change is not related to internationalisation in higher education.
3. Internationalisation is the task of the international office, not mine.
4. Internationalisation of my institution is a process that needs time and the involvement of many players.
5. The idea of social and educational inclusion is not relevant for developing internationalisation at school.
6. The importance of ethnic, language and cultural differences among diverse (special) educational needs will grow.
7. It is almost impossible to internationalise teacher education if students are not fluent in a foreign language.
8. It is useless to internationalise the curriculum of the subject whose goals and content are local oriented.
9. International learning space means there have to be foreign students in the classroom.
10. Our intercultural background does not influence the way we communicate.
11. Non-verbal communication is as important as verbal communication.
12. All stereotypes are negative.
13. Intercultural communication is not possible when cultural differences are huge.
14. Internationalised teacher education is a must as teachers will be working in increasingly globalised environment and in multicultural classrooms.
15. Teacher education does not benefit from adding an international perspective.

These indicators will all be used in pre-to-post to postpost settings (see below). In addition, we will use the following set of post-only indicators that shall directly measure the impact of the DITE project on the participants:

1. I now better understand the important future trends in internationalisation of school education.
2. I now have better tools to explain to my peers what Internationalisation of school education entails.
3. I now better understand the path to become an international teacher.
4. I am now more comfortable with discussing the opportunities and challenges of teaching an international classroom with my peers.
5. Through my participation in this activity, I have become more aware that I am part of a globalised world.

6. This activity has opened my mind to other realities.
7. Because of this activity, I feel much more comfortable with the idea of traveling or even having experiences in other countries.
8. The activity has given me more confidence to relate with people from other cultures.
9. I like the thought that somewhere in this world other people may be participating in an activity like this.

The scale for the post-only items is:

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

2.4.1. Data collection

Next, the online surveys were programmed by the Global Impact Institute. Default language was English (used for the TTT) but all aspects were also translated into Polish, Portuguese, Spanish and Catalan for the “inhouse” training courses since responses to scales to increase reliability. For the Big Five factor, only the validated Spanish version was used, not an additional Catalan version.

The survey was tested by all partners and a selected number of SGroup members and associated partners to provide objective feedback. No adjustments were needed.

2.4.2. Data analysis and report production

Under the leadership of the GII, the data analysis started after the pre-survey of the TTT in order to generate a first baseline. After each step of PR2 and PR3, a new analysis was developed to provide ongoing feedback and inform on the next steps. A final analysis took place after the last post-post collection of the inhouse training courses. Each analysis led to a new draft version of the PR4 report. SGroup supported the GII in this work. The final version was designed after the last survey data had been analysed. Each draft version was shared with all partners and associate partners for review. After completion of the TTT feedback, the participating lecturers will be asked by the respective partner university for qualitative reactions, and the same will happen after the last in-house survey.

These qualitative instances of feedback provided context to the quantitative data and were fed into the final report. The interim PR4 report versions allowed for a continuous information feed into PR2, PR3 and PR5 and therefore for a constant quality improvement of the next steps in those PRs.

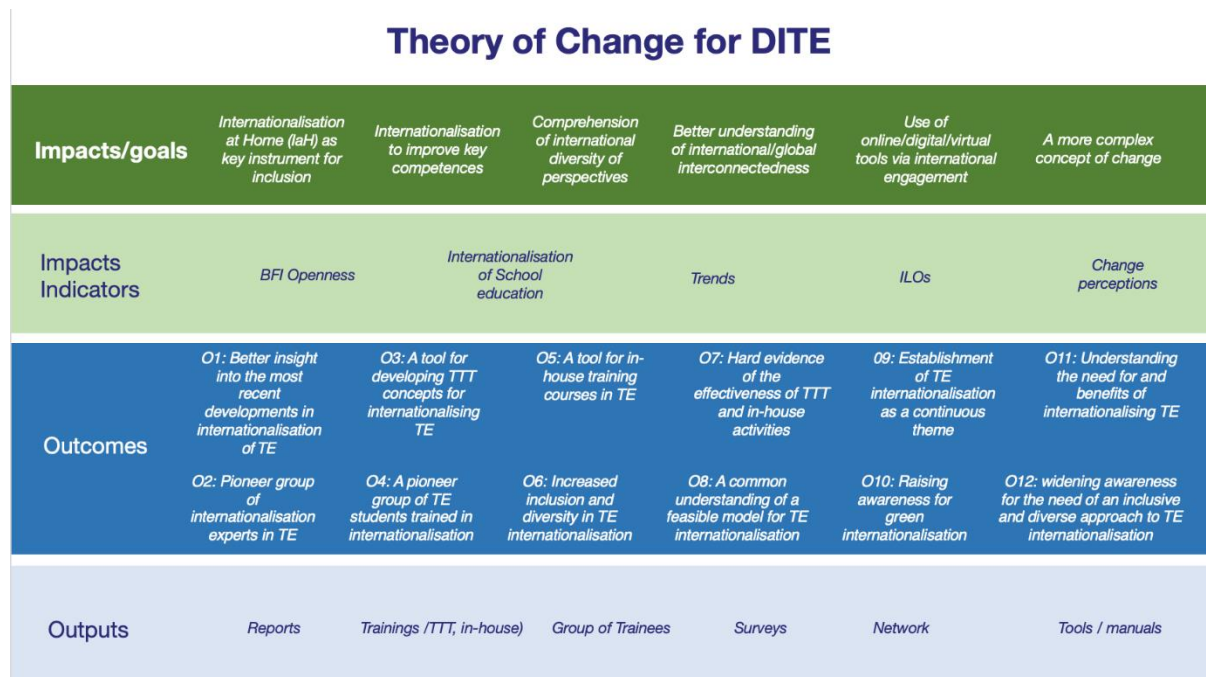
The following aspects formed part of the analysis (depending on the quality of the data collected):

- ❖ All quantitative data was collected 3 times: shortly before, shortly after, and 4-6 months after the training courses (for echo effects).
- ❖ The data was analysed by comparing (when and if available): total, TTT vs in-house, all in-house training courses separately.
- ❖ The analysis contained paired sample 2-tailed t-tests for significance as well as Cohen's d for effect size.
- ❖ We applied a 5% error margin.
- ❖ Additionally, the overall results were compared to those of the SUCTI, SUCTIA and IHES projects, where applicable, to find commonalities or differences.
- ❖ Also, filter data will be used to assess inclusion and diversity in TTT and in-house training courses (as a new aspect, it cannot be compared to previous projects).
- ❖ The new indicators will be discussed, developed and decided in cooperation with all partners, involving academics from TE and associated partners to increase relevance.

3. Theory of Change (ToC)

In DITE, we focus on the levels from output upwards, since input is defined by the workload and time invested in the project.

Figure 2 Theory of Change for DITE. Source: Authors



We pursue 6 major goals with this project:

1. Internationalisation at Home (IaH) as key instrument for inclusion
2. Internationalisation to improve key competences
3. Comprehension of international diversity of perspectives
4. Better understanding of international/global interconnectedness
5. Use of online/digital/virtual tools via international engagement
6. A more complex concept of change

These goals are directly controlled by 5 impact indicators as described above:

1. BFI Openness
2. Internationalisation of school education
3. Global Trends
4. International learning outcomes (ILOs)
5. Change perceptions.

We also defined 12 outcomes that are closely related to the goals of the project:

- O1: Better insight into the most recent developments in internationalisation of TE
- O2: Pioneer group of internationalisation experts in TE
- O3: A tool for developing TTT concepts for internationalising
- O4: A pioneer group of TE students trained in internationalisation
- O5: A tool for in-house training courses in TE
- O6: Increased inclusion and diversity in TE internationalisation
- O7: Hard evidence of the effectiveness of TTT and in-house activities
- O8: A common understanding of a feasible model for TE internationalisation
- O9: Establishment of TE internationalisation as a continuous theme
- O10: Raising awareness for green internationalisation
- O11: Understanding the need for and benefits of internationalising TE
- O12: Widening awareness for the need of an inclusive and diverse approach to TE internationalisation

For all these outcomes, we produced 6 different types of outputs that contribute to those outcomes:

1. Reports
2. Trainings (both TTT and in-house)
3. A group of trainees
4. Surveys
5. A network of DITE enthusiasts
6. Tools such as the manual.

4. Impact assessment: Train-the-Trainer module

We had the following number of survey answers from TTT participants that could be analysed. Response rates for pre and post are excellent. For the postpost, we always expect very low response rates.

Table 2 Number of usable answer from TTT participants by survey

Pre	Post	Postpost
21	21	7

4.1. Pre-to-post

The TTT, which was conducted in a mixed approach of online sessions and in-person training at the Universitat Rovira I Virgili in Tarragona, Spain, took place in the first quarter of 2023. All course participants answered the pre and the post survey. Therefore, I paired assessment could be made regarding the effects of the training.

4.1.1. Openness

The BFI factor openness is traditionally the one aspect that is expected to show the smallest effect. However, in previous projects, we have seen that that does not have to be the case. For the TTT of DITE, the results were clear:

Table 3 TTT Result Openness

Pre	Post	Difference	Significance	Cohen's d
3.78	3.82	+0.04	no	no

While we could find a small improvement, this was neither statistically significant nor did it have a measurable effect size. Since the concepts of the TTTs were similar across different EU projects, we can compare the results to the TTTs in SUCTI, SUCTIA and IHES, we see the following results:

Table 4 TTT Result Openness compared across EU projects

	Pre	Post	Difference	Significance	Cohen's d
DITE	3.78	3.82	+0.04	no	no
IHES	3.86	4.16	+0.30	yes	Medium
SUCTIA	4.13	4.29	+0.16	no	small
SUCTI	3.63	3.89	+0.36	yes	medium

We observe substantial differences between the projects. SUCTI, the first project, had the lowest starting value among all projects. This might not be surprising since those were exclusively administrators, whereas SUCTIA, the project with the highest starting value, focused on academics. IHES and DITE had mixed audiences. In general, this seems to indicate that academics might be on average more open towards new experiences than administrators. However, the SUCTI participants gained by far the most. Their effect size is very comparable to

those in IHES (which also had the second largest share of administrators in the group), both around 0.6 Cohen's d.

The two projects with the largest share of academics show the smallest gains, both show no significance and DITE does not have a measurable effect size either. These results appear to be very consistent over all for projects and the results for DITE, therefore, seem to be reliable. This was also the only indicator which was entirely identical between the four projects. All other aspects were adapted to the different needs of the projects and a comparison must be looked upon with a grain of salt and some caution regarding interpretation.

4.1.2. Internationalisation

For this indicator, we see the following results in DITE:

Table 5 TTT Result Internationalisation

Pre	Post	Difference	Significance	Cohen's d
3.86	4.02	+0.16	yes	medium

As said, the individual items differed between the projects, thus the direct comparison is not as illuminating as in the case of openness.

Table 6 TTT Result Internationalisation compared across EU projects

	Pre	Post	Difference	Significance	Cohen's d
DITE	3.86	4.02	+0.16	yes	medium
IHES	3.56	3.76	+0.20	no	small
SUCTIA	4.18	4.10	-0.08	no	small
SUCTI	3.89	4.22	+0.33	yes	medium

In this aspect, the starting values are fairly identical among three projects, while the SUCTIA group of academics showed an extremely high result. Again, SUCTI and IHES show the best growth rates but in the case of IHES they were not significant. This can be due to the fact, that the samples were not paired (too many answered only one of the two surveys) and thus the t-tests are stricter, assuming more accidental differences. SUCTIA had their only negative result on this aspect, probably due to the immensely high starting value, and that "loss" was not statistically significant. DITE shows an overall very good result since it has a significant gain with a medium effect size.

4.1.3. Trends

The group achieved a measurable improvement which was statistically significant and showed a medium effect size. IHES and SUCTI did not measure this aspect.

Table 7 TTT Result Trends

Pre	Post	Difference	Significance	Cohen's d
3.07	3.31	+0.24	Yes (one-tailed)	medium

In the direct comparison with the other academic-focused project, DITE achieved substantially better results. And again, it seems that a much smaller starting value allows for a bigger gain. The DITE group even had a significant change with a measurable effect size while the SUCTIA TTT group did not.

Table 8 TTT Result Trends compared across EU projects

	Pre	Post	Difference	Significance	Cohen's d
DITE	3.07	3.31	+0.24	Yes (one-tailed)	medium
IHES	Not measured				
SUCTIA	3.29	3.39	+0.10	no	no
SUCTI	Not measured				

4.1.4. ILOs

Here, the TTT group started on a fairly high level, by far the highest among the four indicators, and lost slightly. However, the loss is neither significant nor does it show an effect size. It is therefore irrelevant and left to chance.

Table 9 TTT Result ILOs

Pre	Post	Difference	Significance	Cohen's d
3.96	3.88	-0.07	no	no

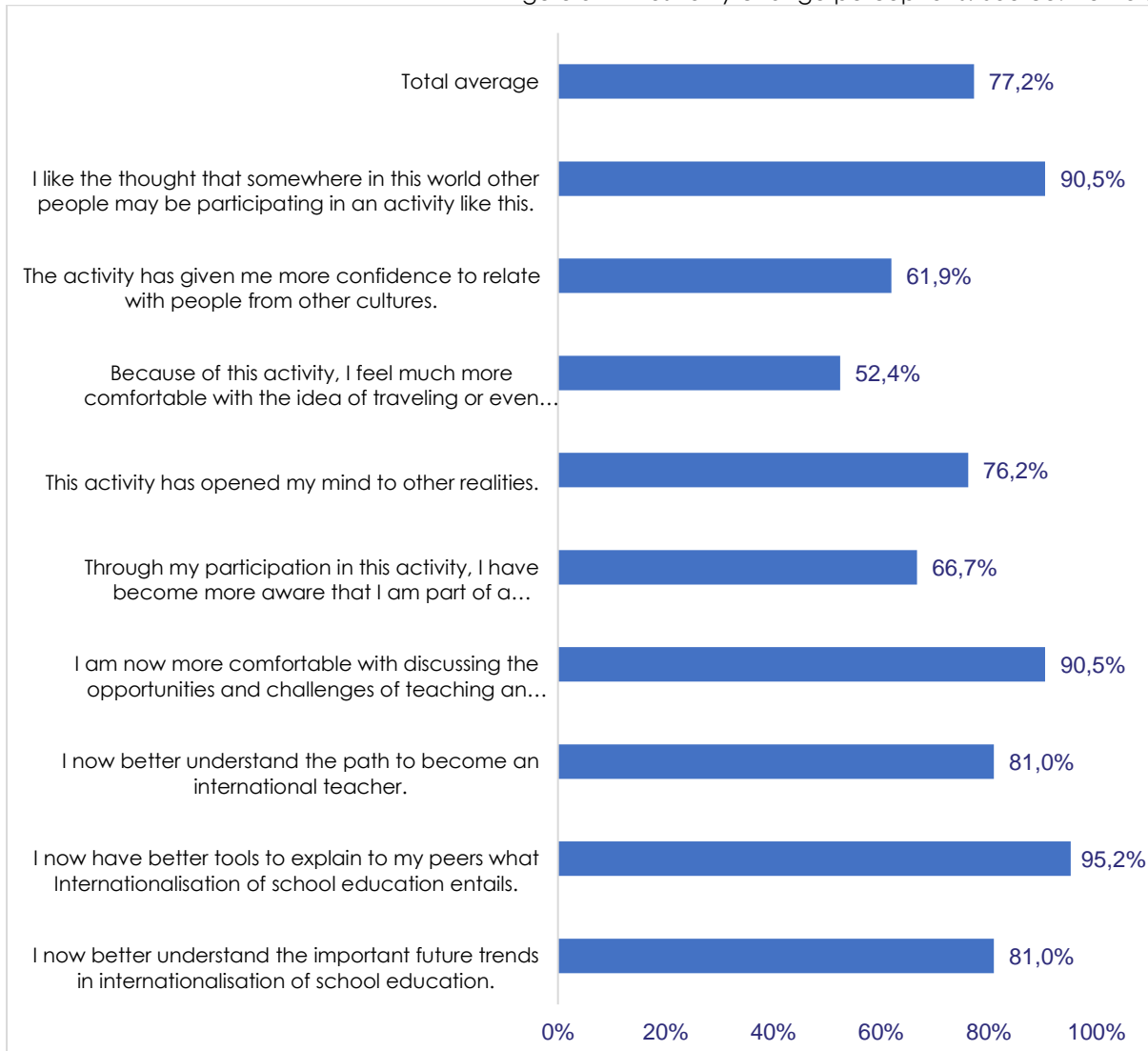
Any comparison between the projects is moot since the ILOs were set specifically to the targets of the respective project and therefore differences in results could refer to the quality of the training as much as the definition of the indicators.

4.1.5. Change perceptions

We applied a set of 9 items to reflect the perception of the TTT participants as to the effects of the training. Such post-only questions are the most frequently used "impact" measurements. Although, we would not apply these indicators as the only option, if possible, they do provide valuable information as to the personal perspective of the participants.

The DITE TTT participants overall showed **a positive perception of the impact of the training**. The percentages shown represent the answers "agree" and "strongly agree". In all aspects, a majority of participants felt an improvement. The lowest percentage thought that the TTT had made them feel more comfortable with the idea of travelling or even having experiences in other countries (52.4%). A much larger share (61.9%) felt that it had given them more confidence to relate with people from other cultures. Two-thirds (66.7%) thought that they had become more aware to be a part of a globalised world. 76.2% felt that their minds had opened to other realities, while 81% understood the importance of future trends in internationalisation of school education better than before the TTT.

Figure 3 TTT Post-only change perceptions. Source: Authors



The three top impacts were all confirmed by more than 90% of the participants. 90.5% agreed or strongly agreed that afterwards, they were more comfortable with discussing the opportunities and challenges of teaching an international classroom with my peers and that they liked the thought of other people somewhere else in the world participating in a similar activity. A whopping 95.2% felt better equipped after the TTT to explain to their peers what the internationalisation of school education entails. Since the last three aspects were among the most important goals that DITE pursues and the last was the essential one for the TTT, the results are very positive.

4.1.6. Pre-to-postpost

We also collected answers from the TTT participants months after their training. However, due to the small number of replies (see above), we abstained from a separate analysis for the TTT.

5. Impact assessment: In-house trainings

Table 10 Number of usable answer from TTT participants by survey

Pre	Post	Postpost
151	138	78

Response rates for pre and post are excellent also for the inhouse group. For the postpost, we always expect very low response rates. Rather than comparing the DITE results for in-house trainings to other projects – as we did for the TTT –, we concentrate on the comparison between the different universities.

5.1. Pre-to-post

As with the TTT, we asked participants to answer the pre survey before starting the training and the post survey right after the last exercise. Overall, we had 151 responses in the pre survey and 138 in the post survey. We also had 137 out of the 138 post cases, which had corresponding pre cases, so we could conduct a cohort and a paired comparison.

Table 11 In-house Result pre-to-post across aspects

		Openness	Attitudes Internationalisation	Trends	ILOs	Post-only
Inhouse	pre-training	3.87	3.70	3.14	3.71	4.a21
	post training	3.98	3.92	3.34	3.91	
	Significance	yes	yes	yes	yes	
	Cohens D	small	medium	small-medium	medium	

We can see that overall, the in-house trainings achieved very respectable results. **In all indicators, the participants gained significantly, and we also see Cohen's d effects across the board.** As to be expected, the effect was the smallest for the personality traits but was even a medium size for attitudes and learning outcomes. This is a highly satisfactory results. The average for the post-only questions is also very positive. When comparing the individual trainings, we do not measure the significances and effects since this would have been too complicated between all trainings and the very diverse sample size would have generated biases. We also see positive developments in each of the universities.

- The largest gain in **openness** happened at AMU (+.17), followed by URV and UPorto (+.11), USZ showed a gain of 0.06.
- UPorto had the largest gain in **attitudes** (+.41), followed by USZ (+.34), URV (+.21) and AMU (+.14).

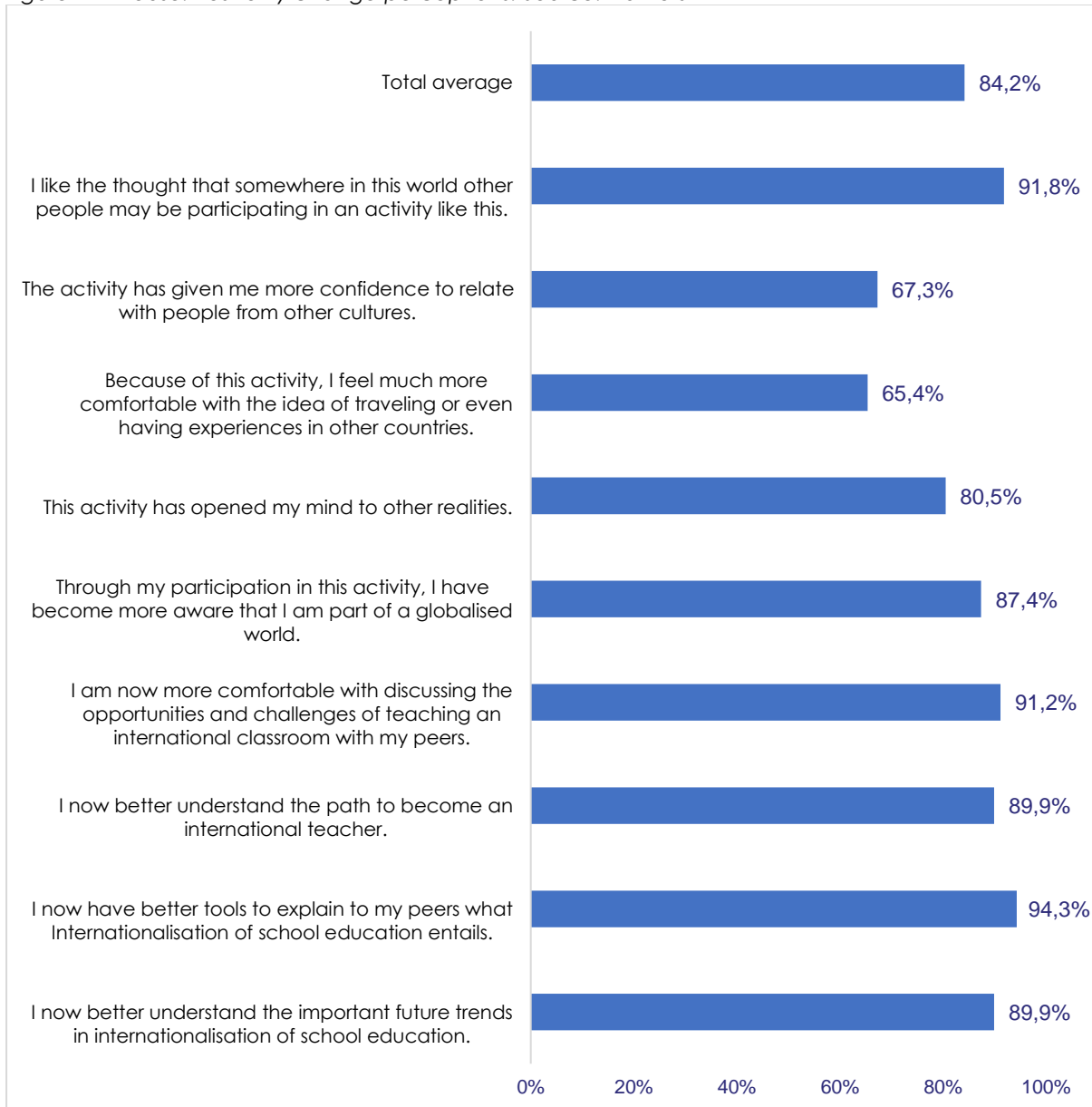
- AMU again led the group regarding gain in **trends** (+.29), followed by URV (+.21), USZ (+.11) and UPorto (+.05).
- The **learning outcomes** showed the best results for UPorto (+.44), followed by URV (+.26) and on par USZ and AMU (+.23).
- Lastly, the **change perceptions** were changed most at AMU, closely followed by USZ and then UPorto. URV had here the most considerable distance with 4.05.

Table 12 In-house Result pre-to-post comparing universities

		Openness	Attitudes Internationalisation	Trends	ILOs	Post-only
USZ	pre-training	4.01	3.68	3.20	3.65	4.45
	post training	4.07	4.02	3.31	3.88	
URV	pre-training	3.81	3.68	3.08	3.73	4.05
	post training	3.92	3.89	3.29	3.89	
UPorto	pre-training	3.94	3.65	3.27	3.61	4.35
	post training	4.05	4.06	3.32	4.05	
AMU	pre-training	3.87	3.70	3.14	3.71	4.46
	post training	4.04	3.84	3.43	3.94	

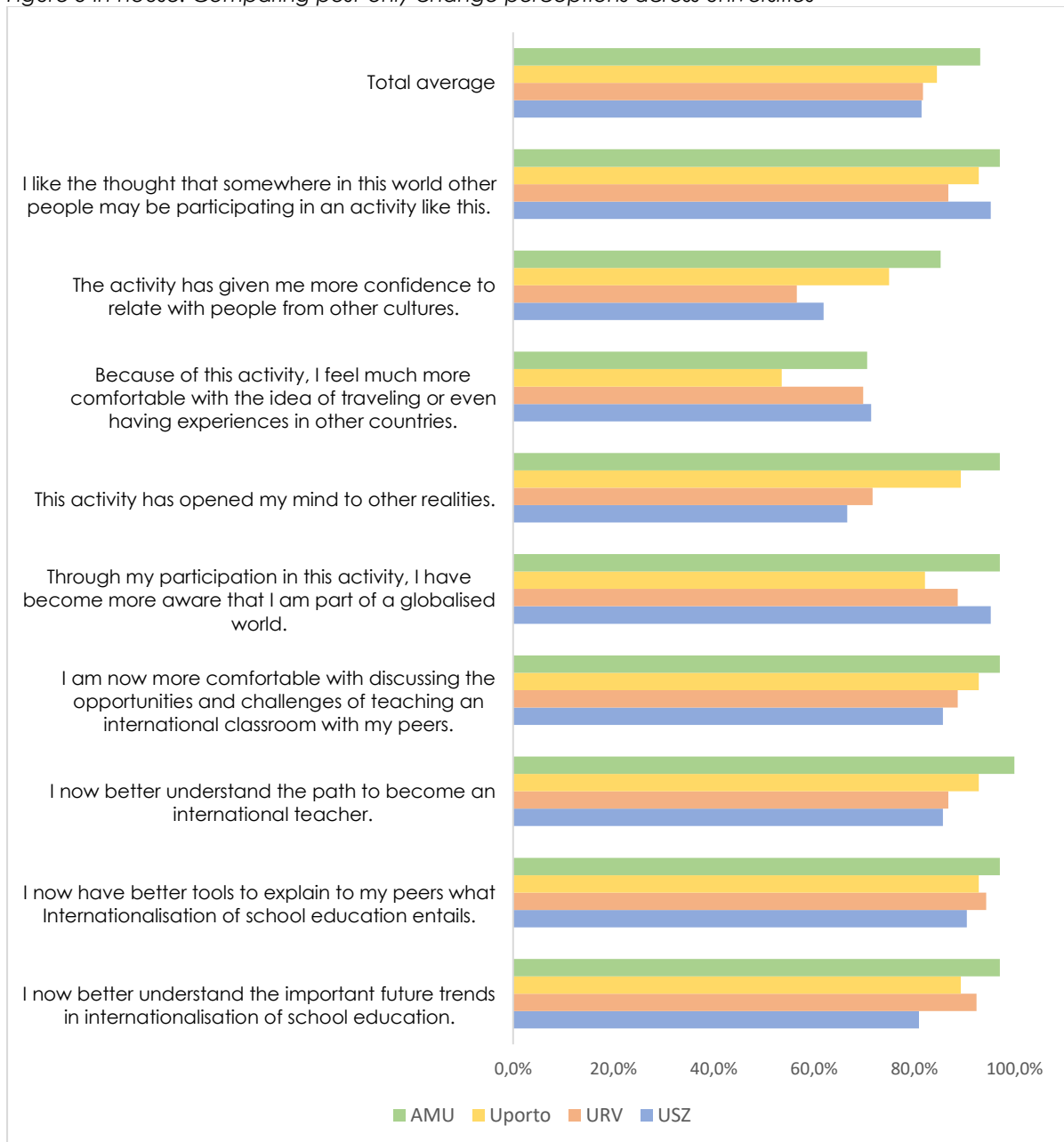
The results for the items in relation to each other are identical between the in-house training and the TTT. The lowest percentage agreed that they now feel much more comfortable with the idea of traveling or even having experiences in other countries (though still nearly 2/3) while practical everybody now felt to have better tools to explain to their peers what Internationalisation of school education entails (Figure 4).

Figure 4 In-house: Post-only change perceptions. Source: Authors



We observe quite some differences between the universities. **AMU stands out in that its participants show the strongest results except for the idea of travelling abroad where USZ took a slight lead.** Otherwise, the picture fluctuates between the universities. **In some aspects URV participants were least convinced, in others those from USZ. The participants of UPorto always score in the middle** (second or third place). Overall, it is a very homogenous picture because **the differences are comparatively small.** Most importantly, all aspects achieve good or mostly even very good results (Figure 5).

Figure 5 In-house: Comparing post-only change perceptions across universities



5.2. Pre-to-postpost

As usual, response rates for surveys long after the training are weak. We had overall 79 responses, varying a lot between the different universities. Therefore, a comparison of averages is meaningless due to the enormous difference in sample sizes. For the same reason, a comparison between universities would not produce meaningful results.

However, we can run a paired-sample analysis and compare:

1. the average results between pre, post and postpost for those individuals that answered all surveys
2. the significance and Cohen's d for pre-to- post and pre-postpost.

5.2.1. Openness

Table 13 Pre-to-post-to-postpost results Openness

	Pre-to-post	Pre-to-postpost
Average	0.13	0.17
Significance	yes	yes
Cohen's d	small	medium

The long-term effects are very encouraging. We actually see an increase in the average gain, meaning that the individuals changed their personality more after digesting the results of the trainings and incorporating them into their daily routines.

It is also remarkable that the effect size grew, confirming that the increase in average is not accidental and indeed meaningful.

5.2.2. Internationalisation

Table 14 Pre-to-post-to-postpost results Internationalisation

	Pre-to-post	Pre-to-postpost
Average	0.21	0.15
Significance	yes	yes
Cohen's d	medium	small-medium

The long-term effect is slightly smaller regarding attitudes, where the average gain decreased slightly and the effect size moved from medium to small-medium (very close to medium, though).

5.2.3. Trends

Table 15 Pre-to-post-to-postpost results Trends

	Pre-to-post	Pre-to-postpost
Average	0.19	0.18
Significance	yes	yes
Cohen's d	small	small

The result for trends is stable. The average gain only decreased minimally from post to postpost, and the effect size remained the same.

5.2.4. ILOs

Table 16 Pre-to-post-to-postpost results ILOs

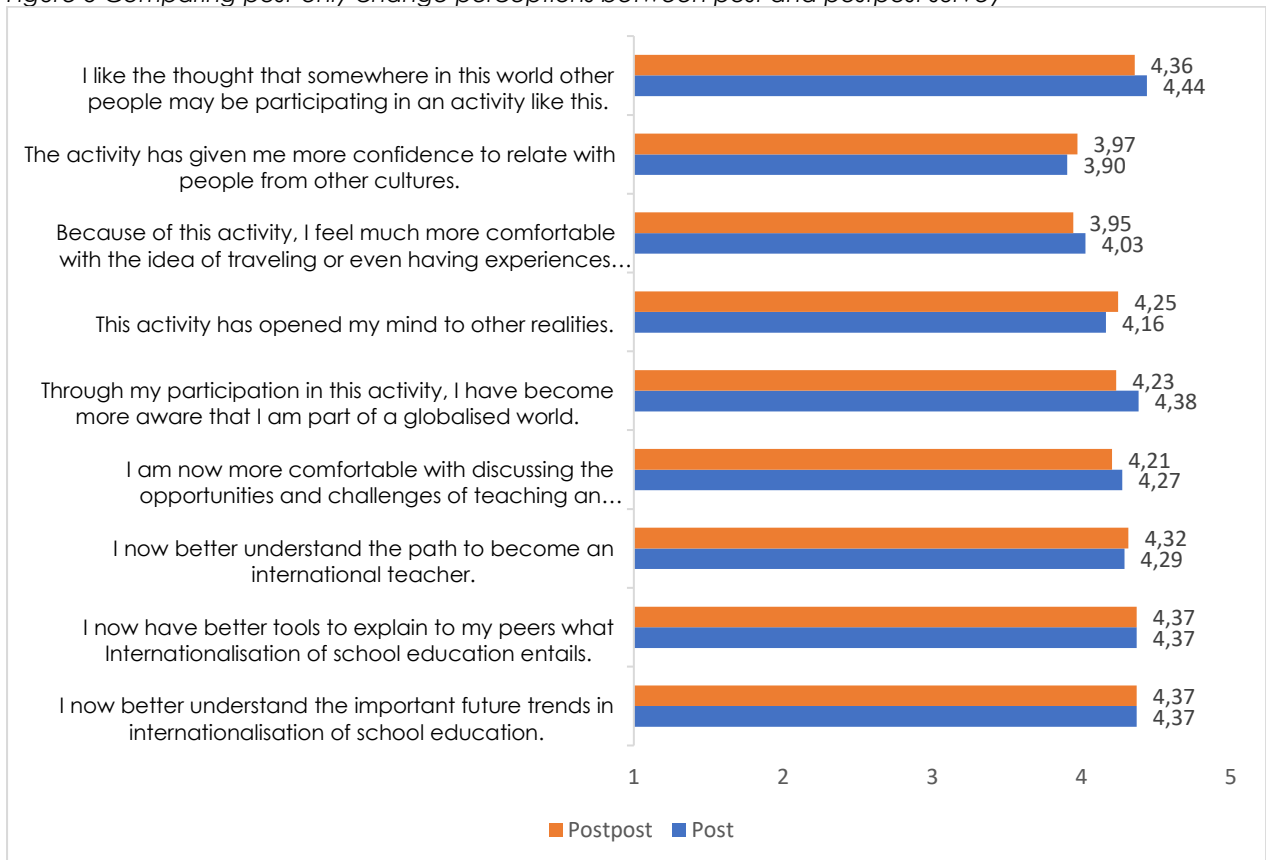
	Pre-to-post	Pre-to-postpost
Average	0.14	0.12
Significance	yes	yes
Cohen's d	small	small

The results for the learning outcomes are nearly identical to the trends. Again, we see a stabilisation of the first gain right after the training and a small effect size.

5.2.5. Change perceptions

For the change perceptions, we again compare the paired samples, i.e., all those cases that answered both, the post and the postpost survey. Since also some answered the postpost who had not answered the post, we had less cases on both sides. We can see that only minimal differences appear for each of the aspects. We ran a significance test and Cohen's d analysis and none of the difference where significant or showed a measurable effect size. Therefore, we can conclude that the opinions formed by the participants right after the training remained valid over a long period of time.

Figure 6 Comparing post-only change perceptions between post and postpost survey



6. Testimonials as qualitative evidence

In the process of the inhouse trainings, we collected some testimonials (Appendix 1) from participants of the University of Porto. We want to share these also in this report to highlight the qualitative evidence for the success of the trainings.

Video testimonials of students from other universities are available [HERE](#)

7. Conclusions

From an impact perspective, the DITE project has achieved all 6 intended project goals as proven by the measurable results on each of the related impact indicators.

It has involved many future trainers and participants across all four universities. It has provided the trainings in a way that produced measurable positive impact results.

Moreover, participants feel very confident to carry the DITE ideas further into their communities.

A striking result is that in many aspects the long-term effects were as good or even better than the short-term impacts. This was confirmed by the stable opinions on personal change by the participants in the post and postpost surveys.

Not the least, the testimonials are proof of the immensely positive effect of the project on the participants.

Appendix 1