Seeing the world on a small island: undergraduate research for sustainable societies

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Introduction

Our undergraduate research program stimulates bachelor students from the University of Aruba (UA) and Utrecht University (UU) to engage with societal challenges and the world at large.

- Field site is Aruba, a small island state with cultural history, socioeconomic circumstances and a natural environment that make it well-suited as a site for SDG-related field work in disciplines across the academic spectrum.
- Students employ principles of community-based research in diverse individual projects.
- Students form an intercultural and interdisciplinary team and support each other’s research process in a peer-to-peer learning context.
- Cultural and intellectual exchange with each other and with stakeholders in the Aruban community enhances students’ understanding of other cultures, their own society, and their role in the world.

Program Objectives

- Research skills
- Societal Engagement
- Personal Development
- Skills in:
  - Research planning
  - Empirical methods / data collection
  - Analysis of empirical data
  - Communicating about results to diverse audiences

Enrichment of:
- Perspective on diversity
- International social / professional network
- Sense of competence / efficacy
- Vision for own future

Appreciation for:
- Research addressing societal issues
- Different kinds of knowledge
- Relationship post-colonial world / Europe
- Impact of globalization

Connecting via knowledge

- Student-researchers work with each other, with stakeholders and with young research partners from UA's Academic Foundation Year
- Initial contact with (potential) stakeholders & research informants
- Team meetings on individual research aims & approaches
- Excursions highlighting cultural, social, economic & environmental challenges
- Peer-to-peer learning: sharing & supporting

Sharing & communicating results

- Students write and peer review papers for annual program volume
- Students present research outcomes to community at public symposium

Program Design

Course: Caribbean Studies spring semester

Field Period (10-11 weeks)
- Community-based research activities
- Data collection
- Preliminary analysis
- Peer-to-peer learning: sharing & supporting

Program project spin offs

- Impact in Aruban context: inspiration for community initiatives, local activism and policy proposals
- Academic publications of research outcomes
- Alumni engagement in Aruban education programs

In participants’ own words

Getting a chance to go public with what I’ve researched was a new and unique experience for me... (Working with) students of other disciplines ... made me think ... (beyond) what I’ve learned in my study.

The program granted me the possibility of meeting key people, improving my thesis results so these could really make a difference and benefit Aruba. A simple bachelor’s thesis turned from an annoying requirement into an opportunity to make a difference :) A life changing experience ... it helped to form us considerably [beyond] what I've learned in my study.

The program made me possible the meeting key people, improving my thesis results so these could really make a difference and benefit Aruba.

For detailed information, see
UA website: http://www.ua.aw/international/
UU website: https://tinyurl.com/qvc8naw

Key Outcomes

<table>
<thead>
<tr>
<th>Example student projects</th>
<th>SDGs</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>The assessment of Aruba’s shoreline pollution</td>
<td>13, 14</td>
<td>2015</td>
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<tr>
<td>Employee perceptions of mental communication within the health sector</td>
<td>8, 17</td>
<td>2015</td>
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<tr>
<td>Anxiety management in a changing society</td>
<td>3</td>
<td>2016</td>
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<tr>
<td>The role of English in Aruba’s linguistic landscape</td>
<td>11</td>
<td>2016</td>
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<tr>
<td>Mica and cultural commodification in Aruba</td>
<td>11, 12</td>
<td>2017</td>
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<td>Assessment of endemic fauna in key biodiversity areas</td>
<td>15</td>
<td>2017</td>
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<td>Emotional impact in people with disabilities striving to be independent in Aruba</td>
<td>3, 10</td>
<td>2017</td>
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<td>Policy for energy system innovation: multi-actor policy-making of the Aruba energy transition</td>
<td>11, 13, 17</td>
<td>2018</td>
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<td>The impact of illegal dumping sites on the environment</td>
<td>15</td>
<td>2018</td>
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<tr>
<td>Sharing stories (ba pask): the making of heritage in a Caribbean oil town</td>
<td>9, 10, 11</td>
<td>2019</td>
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<td>Off-road driving and the ecosystem: impacts on landscape functionality</td>
<td>15</td>
<td>2019</td>
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<tr>
<td>Impact costs of fruits and vegetables on Aruba: mitigating the volatility of prices to ensure sustainable supply</td>
<td>2</td>
<td>2019</td>
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Key Outcomes: Numbers

<table>
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<th>Outcomes 2014-2019 in numbers</th>
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<tr>
<td>UU students completing preparation course</td>
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<td>UU students completing field research program</td>
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<td>Field research projects in annual volume</td>
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All projects include community-based dimensions & address needs in Aruban society.

Projects link to one, and often more, global SDGs.

Total projects per SDG (2015-2019):

<table>
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<tr>
<th>SDG</th>
<th>1</th>
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These totals include projects involving cultural heritage, linking them to SDGs, 8, 11, 16 and 17, depending on the focus.

Conclusions

- Undergraduate research in context of diversity: a pedagogical instrument that creates a transformative and empowering experience for students.
- Students benefit personally from cultural and intellectual exchange.
- CBR & peer-to-peer learning: understanding and appreciation of different kinds of knowledge.
- Research skills made meaningful for students and society by invoking SDGs.
- Bachelor students make transition from student to independent researcher (quality research)
- Outcomes of undergraduate research have impact in the context of the small island state.

Acknowledgements

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