



21st Century Skills

A student perspective

Research group 1, 24 October 2017

Research Centre
Business Innovation



Researchers

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Agenda

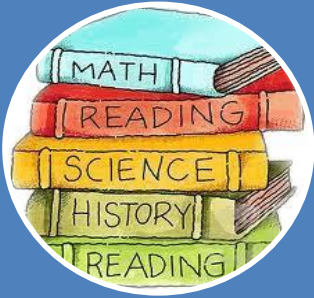
- The concept of “21st century skills”
- Research questions and objectives
- Research design and process
- Preliminary results
- Future research

Let's start



**Chahira Kalar - 4th year IBMS
student**

The concept of "21st century skills"



foundational literacies

Literacy
Numeracy
Scientific literacy
Internet, Media
Technology literacy
Financial literacy
Cultural & civic literacy
Environmental literacy



competencies

Critical thinking /
problem solving
Creativity
Communication
Collaboration
Entrepreneurship



life skills

Curiosity
Initiative
Persistence
Adaptability
Leadership
Social & cultural
awareness
Health and psychological
awareness

Research questions

Which 21st Century do Rotterdam UAS students think they need to develop during their studies in order to increase their employability?

Sub-questions:

1 International labour market

2 Skills development according to students' perception

Research objectives

1. To define and describe the trends and developments of (inter)national labour market in relation to employability of university undergraduates
2. To clarify the Skills development process throughout their studies at RUAS, how these Skills have been developed, as well as the gaps existing between the level of Skills achieved at RUAS and the expectation among employers
3. To clarify and understand the perception of acquired Skills by students during their studies (in relation to their employability)
4. To provide advice to educational departments in terms of missing Skills as well as possible actions to enhance their Skills training

Research methods

Mixed method

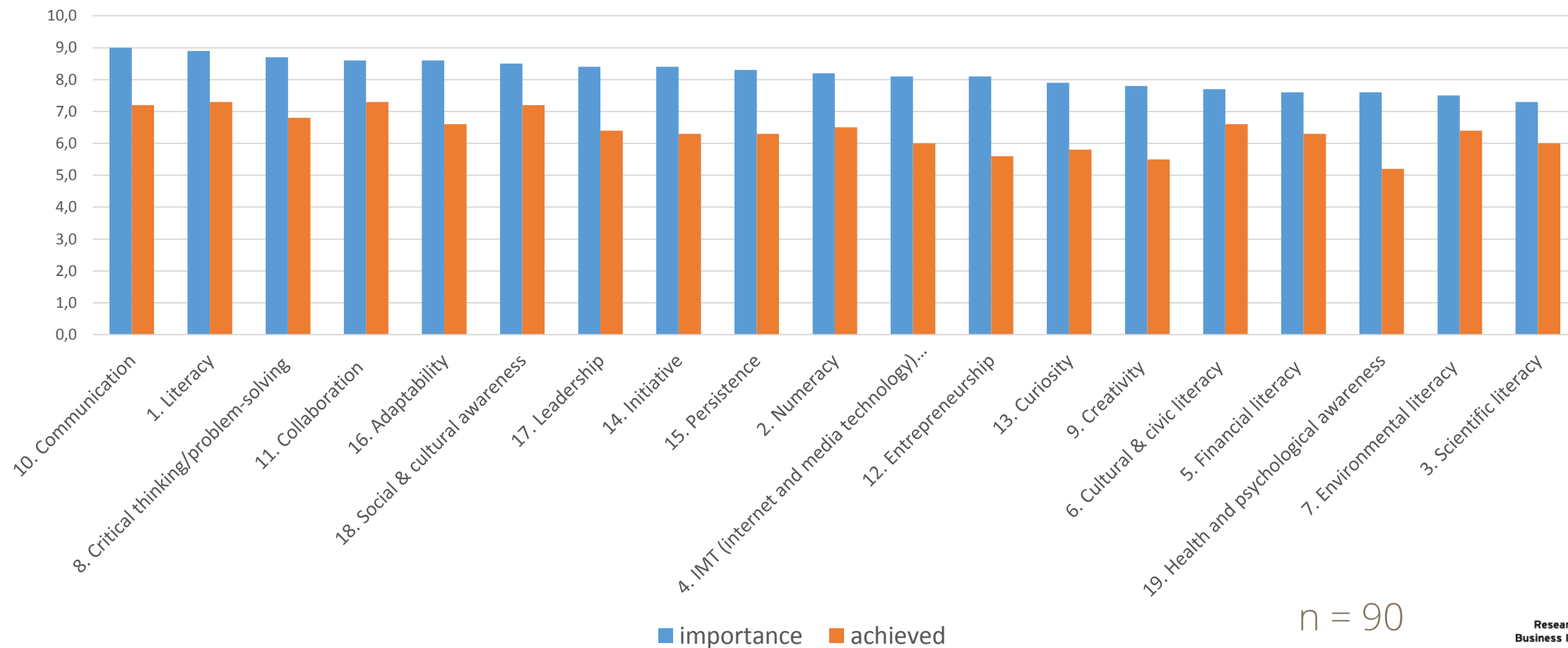
1. Desk research
2. Focus group - RBS and CMI
3. Pilot study - 2nd year RBS (IBMS students)
4. Survey 1st and 4th year students – CMI, IBK, RBS and WdKA



Results quantitative research

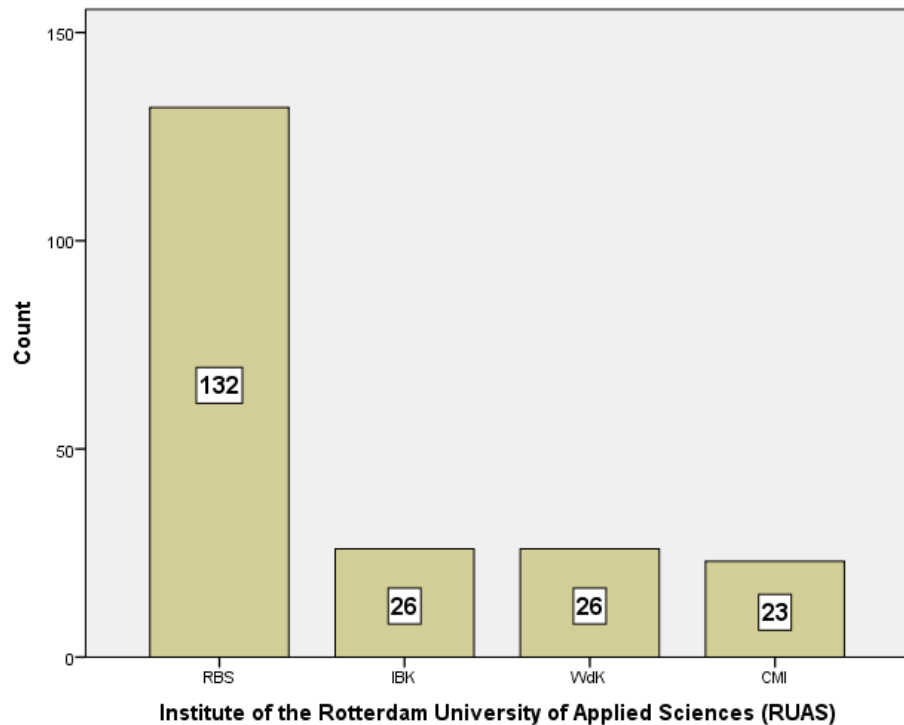
Results – Pilot study

21st Century skills - 2nd Year students IBMS



n = 90

Results – 4th year students



| Institute of the RUAS | N | Male | Female | Age | sd | Dutch / Non-Dutch |
|-----------------------|-----|----------|----------|-------|------|---------------------|
| CMI | 23 | 14 (61%) | 9 (39%) | 23,39 | 2,13 | 23 (100%) |
| IBK | 26 | 12 (46%) | 14 (54%) | 22,77 | 2,21 | 26 (100%) |
| RBS | 132 | 68 (52%) | 63 (48%) | 24,57 | 2,67 | 90 (67%) / 44 (33%) |
| WdK | 24 | 6 (25%) | 16 (75%) | 23,72 | 2,34 | 22 (85%) / 4 (15%) |

Results – 4th year students - Importance

| CMI | | IBK | | RBS | | WdKA | |
|------------------------------------|------|------------------------------------|------|------------------------------------|------|------------------------------------|------|
| Critical thinking/problem-solving | 9,17 | Health and psychological awareness | 8,27 | Health and psychological awareness | 8,53 | Creativity | 8,62 |
| Creativity | 9,13 | Communication | 7,92 | Communication | 7,61 | Health and psychological awareness | 8,50 |
| Persistence | 8,91 | Persistence | 7,88 | Social & cultural awareness | 7,55 | Communication | 8,48 |
| Communication | 8,87 | Critical thinking/problem-solving | 7,85 | Adaptability | 7,50 | Initiative | 8,29 |
| Financial literacy | 6,62 | Scientific literacy | 6,35 | Environmental literacy | 6,36 | IMT literacy | 6,13 |
| Numeracy | 6,35 | Financial literacy | 6,08 | Financial literacy | 6,15 | Scientific literacy | 5,64 |
| Health and psychological awareness | 6,26 | Environmental literacy | 5,88 | Scientific literacy | 6,06 | Financial literacy | 5,46 |
| Environmental literacy | 4,71 | Numeracy | 5,69 | Numeracy | 5,72 | Numeracy | 3,50 |

n = 207

Results – 4th year students – Gender

Gender difference on 11 items

| | | n | mean | sd | t | df | p |
|----------------------------------|--------|----------|-------------|-----------|----------|-----------|----------|
| Social cultural awareness | Male | 97 | 7,71 | 1,779 | -2,227 | 198 | 0,027 |
| | Female | 103 | 8,27 | 1,778 | | | |
| SCA RUAS contribution | Male | 97 | 6,56 | 2,363 | -2,175 | 197 | 0,031 |
| | Female | 102 | 7,26 | 2,229 | | | |
| SCA extracurricular contribution | Male | 95 | 7,11 | 1,954 | -2,905 | 191 | 0,004 |
| | Female | 98 | 7,89 | 1,787 | | | |

n = 207

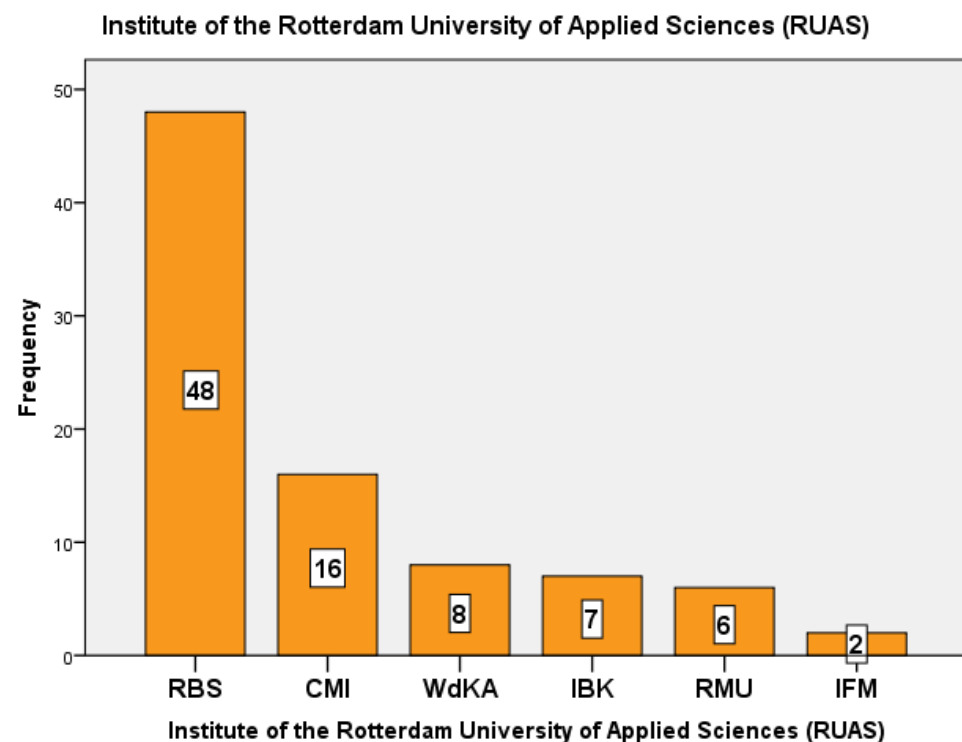
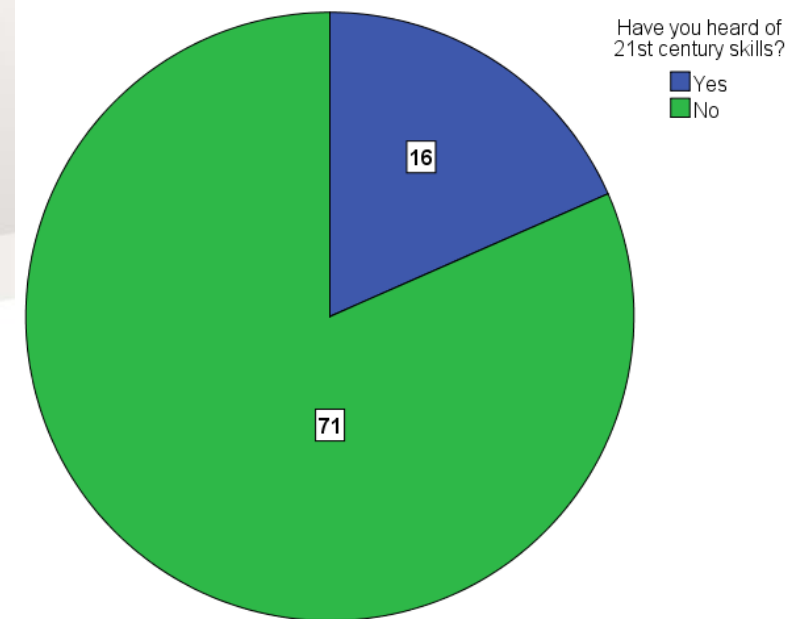
Results – 4th year students – In-depth

| | CMI | IBK | RBS | WdKA |
|---|------------|------------|------------|-------------|
| International week at school | 5,00 | 6,00 | 4,00 | - |
| International projects at school | 4,00 | 6,00 | 7,00 | 5,50 |
| Studytrip outside the Netherlands | 3,00 | 6,00 | 8,00 | 6,00 |
| International guestspeakers | 6,00 | 5,00 | 6,00 | 7,00 |
| RUAS lecturers | 7,00 | 6,00 | 7,00 | 7,00 |
| Lecturers with international experience | 4,00 | 6,00 | 7,00 | 6,00 |
| | - | 7,50 | 10,00 | 8,00 |
| Placement / internship outside the Netherlands | | | | |
| Placement / internship at an international company in the Netherlands | 7,50 | 8,00 | 8,00 | 8,00 |
| | - | 9,00 | 9,00 | - |
| Semester exchange program at a partner university | | | | |
| Thesis assignment at an international company in the Netherlands | 6,00 | 8,00 | 8,00 | - |
| | - | - | 8,00 | - |
| Thesis assignment outside the Netherlands | | | | |
| Daily life in the Netherlands | 7,00 | 7,00 | 7,00 | 7,00 |
| My international friends | 6,00 | 7,00 | 8,00 | 8,00 |
| My international classmates | - | - | 8,00 | 7,00 |
| Part-time job / Holiday job | 5,00 | 8,00 | 7,00 | 7,50 |
| Travel | 7,00 | 8,00 | 9,00 | 8,00 |
| Membership of an association | 4,00 | 7,00 | 7,00 | 7,00 |
| Social media groups | 7,00 | 6,00 | 7,00 | 7,50 |

n = 207

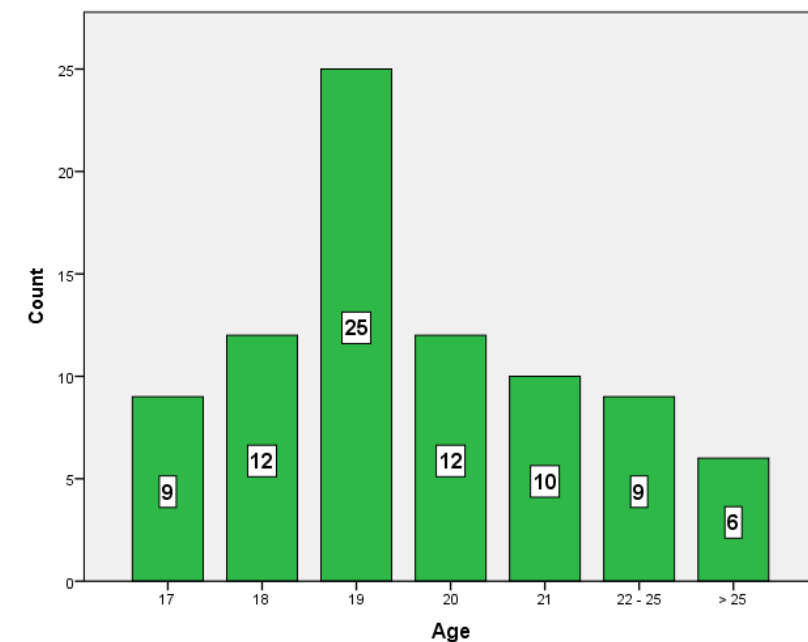
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Results – 1st year students



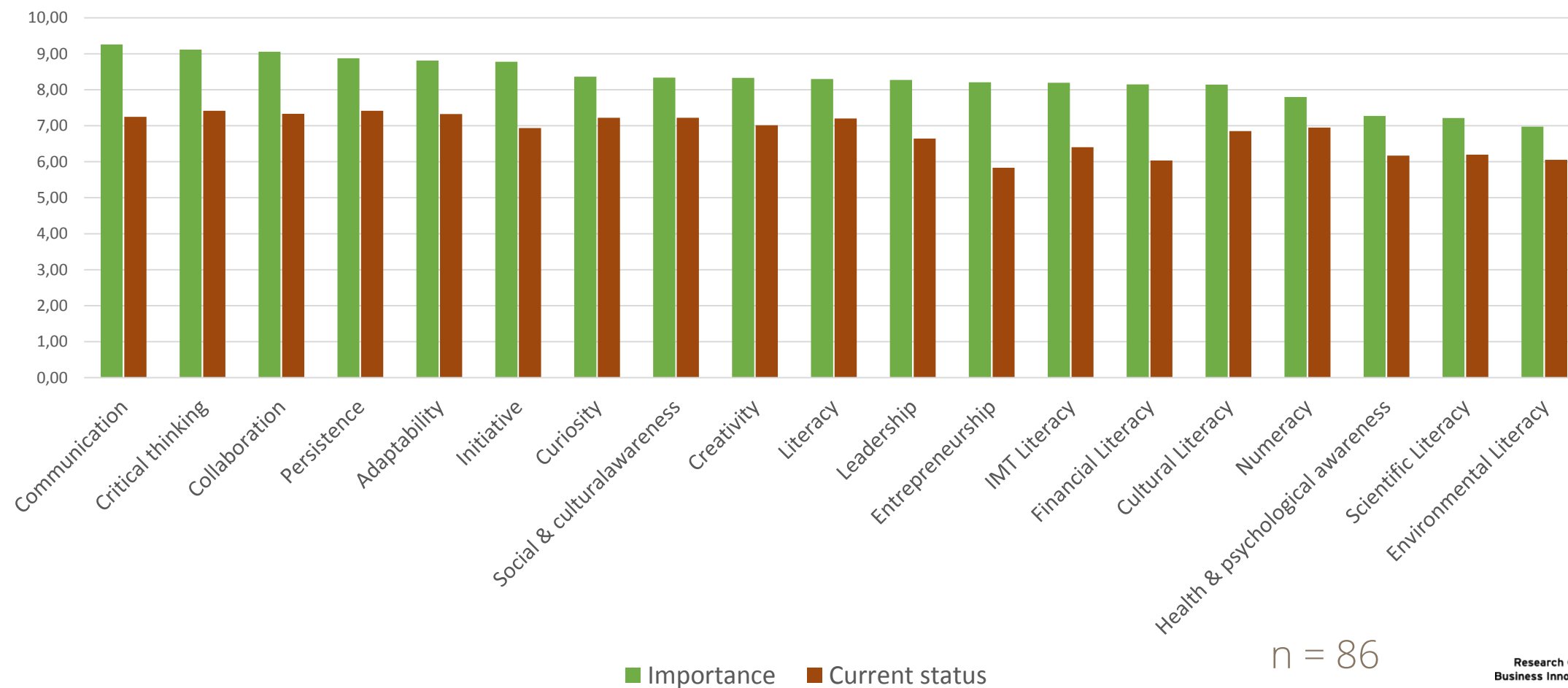
Male: 37 (44%) Female: 47 (56%)

Education inside NL: 57 (68%) outside NL: 27 (32%)



Results – 1st year students

21st Century Skills - 1st Year Students



n = 86

Next steps

- Further research into the different components of the 21st Century skills to gain a better understanding of their definitions and how these are valued
- Also to monitor the development of these components over time
- Valorisation of the findings within RUAS eg. Inform the curriculum committees
- Report the findings via publications

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