

From Language Portraits to Language-In-Education Policies in Higher Education for the 21st Century

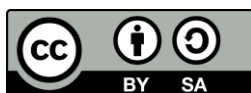
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Abstract: The focus of this paper is to contribute to the conversation about 21st-century teaching skills from the vantage point of appropriate language-in-education policies for this context that keep the development of 21st-century skills in mind. The approach taken was to use language portrait data gathered among students at the North-West University (NWU) in South Africa to establish the nature of their language repertoires and to investigate the relationships between the languages in the repertoire of the participants and 21st-century skills. The findings from these analyses were then used to capture recommendations for appropriate 21st-century language-in-education policies. The main findings from the analyses are that the participants display multilingual profiles, and that the languages included in the repertoires of the participants perform different functions. The analysis approach towards the language portraits seems to hold great potential to link the information provided in language portraits more directly to language-in-education policies.

Keywords: language portraits; language-in-education policies; higher education; South Africa; 21st-century skills



1 Introduction

In a special journal issue dedicated to 21st-century teaching, it is apt to also consider language-in-education policies for 21st-century teaching and learning. The notion of the 21st-century skills has captured the imagination of educators for some time and it has influenced higher education policies, practice and research (e.g. Tight, 2021, p. 160). Scholars like Tight criticise the notion of 21st-century skills as an unnecessary movement in higher education, because “the experience of higher education should be sufficient to develop critical thinking abilities – and probably many other twenty-first century skills as well – without any specific intervention” (Tight, 2021, p. 170). In addition, he believes that the label, 21st-century skills, is devoid of conceptual weight, mainly because the skills listed are not new (Tight, 2021, pp. 164–164). He also thinks that there is considerable overlap between previous lists of core, generic, key or transferable skills aimed at as outcomes for higher education in the previous century, and the so-called new 21st-century skills:

“The obvious conclusion from these comparisons of the skills identified as being of importance is that there is no real difference between core, generic, key, transferable and twenty-first century skills. They are simply alternative labels: the contents, while flexible, are profoundly similar.” (Tight, 2021, p. 165)

The criticism of the supposed novelty of the 21st-century skills does not erode the idea that there are core skills that educators identified as important to be fostered in higher education. Tight (2021, pp. 164–165) successfully summarises the overlapping skills when he compares authoritative studies that focused on core, generic, key and transferable skills, and the skills listed as so-called 21st-century skills. Some of the most famous lists of these skills include Trilling and Fadel’s (2009, p. 176) list of the “7 C’s skills of 21st-century learning”: critical thinking and problem solving, creativity and innovation, collaboration, teamwork and leadership, cross-cultural understanding, communications, information and media literacy, computing and ICT literacy, career and learning self-reliance. For the purpose of this paper, it is important to note that several authorities identified communication skills as one of the most important skills to be fostered in higher education (see summary in Tight, 2021, pp. 164–165 where he references Billing, 2003, p. 346, Oliver & Jorre de St Jorre, 2018, Rios et al., 2020, p. 80, and Washer, 2007, p. 62).

The focus of this paper will be on contributing to the conversation about 21st-century teaching skills from the vantage point of appropriate language-in-education policies for this context that keeps the development of 21st-century skills in mind.

2 Research question

The research question of interest in this paper is: What types of languages-in-education policies would best foster the learning of 21st-century skills? This paper wants to contribute to conversations about ideal pedagogies and curricula for fostering the 21st-century skills by focusing on the issue of relevant and appropriate language-in-education policies within which higher education for the 21st century could be situated. The main approach is to work towards a description of the sociolinguistic realities of higher education students in South Africa, and then to use these descriptions to outline relevant and appropriate language-in-education policies that are aligned with the sociolinguistic realities of the students, as well as the 21st-century skills.

3 Research method

One could study the sociolinguistic realities of South African students in many ways. In this paper, a selection of 70 language portraits will be analysed to provide a description of the sociolinguistic realities of these learners. This language repertoire information could be used as input to design appropriate language-in-education policies that could support the fostering of 21st-century skills. The portraits were gathered as part of a larger data set of language portraits created by South African students at one higher education institution, the North-West University (NWU). The NWU is the second biggest residential university in South Africa with 53,469 students and 1,648 permanent academic members of staff (in 2021) (see the NWU Integrated Annual Report, 2021, p. 15). The NWU has three campuses which are located in Mahikeng, Potchefstroom and Vanderbijlpark. In 2020 when the language portraits were gathered, the NWU had 12,221 first year students. Out of the total number of first year students entering the NWU in 2020, 2,033 provided informed consent for their language portraits to be used in this research study.

3.1 Participants

For the purpose of this paper, 70 participants from the Potchefstroom Campus of the NWU were selected from the bigger language portrait data set. The 70 participants were selected by identifying the first ten participants each for the top six home languages (Afrikaans, English, Setswana, isiZulu, Sesotho, Sepedi) among the language portrait participants on the Potchefstroom campus starting with the last data point captured. In other words, the 70 participants were selected working from participant 2,033 (the last participant) upwards. This means that the language portrait data for participant 2,033 were captured in the last line of the excel data spreadsheet, and the selection of the 70 participants included in this analysis (using the inclusion criteria related to home language stated above) was done by working from participant 2,033 to the top of the excel spreadsheet where participant 1's data were captured. To represent a smaller home language, participants who reported Tshivenda as home language were also included as a 7th home language group from which 10 participants were selected.

All the participants are from the Potchefstroom Campus of the NWU and most of the participants included in this analysis are from the Faculties of Health Sciences (27/70 or 38.57 %) and Law (20/70 or 28.57 %). The female participants made up 61.4 percent (or 43/70)¹ of the data set for analysis and the male participants were 32.8 percent (23/70), which is representative of the institution's gender profile for students. The majority of the participants (97.14 % or 68/70) were in the age group of 18 to 24 years of age and the remaining participants were in the age group 25 to 30 years (1.4 % or 1/70), which is typical for first year students at South African universities. The majority of the participants included in the analysis reported to perceive themselves as belonging to the population group of Black African people (74.28 % or 52/70), while 18.57 percent (13/70) reported to perceive themselves as White South Africans. Four (out of 70 or 5.7 %) of the participants regarded themselves to be Indian or Asian South Africans and one participant (out of the 70 or 1.4 %) self-identified as a Coloured South African. The self-reported population groups of the participants are also representative of the NWU's profile.

The participants included in the analysis report an average of 4.57 languages in their repertoires (see Table 1 on the next page). The minimum number of languages reported in the repertoires of the participants is two and the maximum is twelve (with a standard deviation of 2.28). The Afrikaans and English home language participants are mainly bi- or trilingual, while the African home languages participants are more multilingual.

¹ Where numbers do not count up to 70, the participants did not provide a response to the questionnaire item.

Table 1: Cross-tabulation of home languages and number of languages in the repertoires of the selected language portrait participants (source: own research)

<i>Home Language</i>	<i>2 languages</i>	<i>3 languages</i>	<i>4 languages</i>	<i>5 languages</i>	<i>6 languages</i>	<i>7 languages</i>	<i>8 languages</i>	<i>9 languages</i>	<i>10 languages</i>	<i>12 languages</i>	<i>Total</i>
Afrikaans	6	4	0	0	0	0	0	0	0	0	10
English	3	4	1	1	1	0	0	0	0	0	10
Sepedi	0	0	1	3	2	2	2	0	0	0	10
Sesotho	3	0	2	2	1	1	1	0	0	0	10
Setswana	0	4	1	1	0	0	2	1	0	1	10
Tshivenda	0	3	3	1	0	2	0	1	0	0	10
isiZulu	2	0	2	2	3	0	0	0	1	0	10
Total	14	15	10	10	7	5	5	2	1	1	70

3.2 Instruments

Each of the participants completed a brief language repertoire survey and created a language portrait. The language portrait data were captured in the format used by Peters and Coetzee-Van Rooy (2020) where the participants created a language portrait and then reflected on the languages on their portraits by explaining why they selected a specific place and colour for a language on the human silhouette by writing brief notes on a template.

3.3 Data gathering

The NWU included a compulsory Language Awareness workshop as part of its Reception and Welcoming programme for first year students in 2020. One of the workshop activities was the creation of a language portrait. The researcher registered the language portrait project as an approved research project at the NWU and also received ethics approval to use the language portraits submitted by participants who provided written consent for research purposes. The researcher trained 50 facilitators to offer the Language Awareness Workshops (LAW) in January and February 2020 on all three campuses of the NWU. A total of 2,033 NWU first year students provided written consent that their language portraits could be used for research purposes. For the purpose of this paper, 70 of the participants' language portraits are included in the analysis. The participants created language portraits on hard copy with coloured crayons provided by the university during the workshops.

3.4 Data analysis

Language portraits are extremely useful instruments to facilitate the reflection of participants on the nature of their language repertoires. Language portrait data are analysed mainly via content analysis of the interviews conducted in which participants explain their choices for the places and colours selected for the languages in their repertoires as presented on the human silhouette. Peters and Coetzee-Van Rooy (2020) developed a portrait-corpus approach to capture language portraits and participants' explanations for the places and colours selected for the languages that are presented on the portraits.

In this paper, a content analysis of the explanations of the participants for the selection of places and colours of languages on the human silhouettes is conducted with Atlas.ti.

To investigate the usefulness of language portrait data to guide language-in-education policies for these participants, different sets of pre-determined codes were developed for the analysis. The first code set refers to the coding of the languages indicated on the portraits. The second set of codes includes the placement of languages on the silhouette. The third set of codes refers to the colours selected for the languages on the portraits. The fourth set of codes categorise the roles that the languages play in the repertoires. The four roles identified are: home² language, additional³ language, heritage⁴ language and desired⁵ language. The fifth set of codes refers to the functions that the languages on the portraits perform in the repertoires. The basic functions that languages could perform, as identified by Aronin and Singleton (2012, p. 18), formed the basis of this set of codes: one could perform cognitive, communicative and/or identity functions with a language. The sixth set of codes includes the 7 C's identified by Trilling and Fadel (2009, p. 176) as part of the list of 21st-century skills (see above, Section 1).

After the coding was done with these code sets, frequencies and co-occurrences were determined to explore main trends and to determine if and how the language portrait analysis could inform language-in-education policies for these students. The first round of analysis includes descriptive measures that would enable a better understanding of the sociolinguistic realities of the participants as expressed in their language portraits. One could also see this as a description of the nature of the language repertoires of the participants as expressed in the portraits. For this purpose, the languages included in the portraits are reported. The second round of analysis involves reporting the co-occurrences of the languages on the portraits and places and colours on the silhouette. The third round of analysis involves investigating the co-occurrences of places of languages and the (a) roles played by the languages, (b) functions performed by the languages, and (c) 21st-century skills related to the languages on the portraits. The fourth round of analysis involves investigating the co-occurrences of the roles played by the languages on the portraits and (a) the functions and (b) 21st-century skills. These rounds of analysis would provide one with a clear picture of the sociolinguistic reality of the participants that one could then use to infer how this information could inform language-in-education policies.

4 Findings

4.1 Languages represented on the portraits

The 70 participants included a total of 32 different languages on their language portraits. Overall, there were 613 references to these 32 languages on the portraits. There are three clusters of languages according to the frequencies of the languages included on the portraits. Cluster 1 includes ten languages that are included in the portraits more than 20 times: English (128), Afrikaans (98), Setswana (62), isiZulu (56), Sepedi (38), Sesotho (38), Tshivenda (38), isiXhosa (26), French (22), Spanish (19). Cluster 2 includes eleven languages that are included more than four times and less than ten times in the portraits: isiNdebele (8), Mandarin (8), Swati (8), Xitsonga (8), Arabic (6), German (6), Portu-

² This is the language that the participants indicated as the home language in the short biographical questionnaire that they completed. The participants also consistently referred to the home language when they made notes about the placement and colour chosen for these languages in the language portrait data.

³ All languages that are not indicated as home, heritage or desired languages are coded as additional languages. The participants often refer to these languages as languages acquired in addition to the home language in their notes made about the placement and colour chosen for these languages in the language portrait data.

⁴ Heritage languages are indicated overtly as such in the notes by the participants in the language portrait data.

⁵ Desired languages are indicated overtly as languages that the participants do not yet know and aspire to acquire.

guese (6), Dutch (4), Italian (4), Shona (4), Swahili (4). Cluster 3 includes eleven languages that were included two times in the portraits: African languages (2), Bangla (2), Hebrew (2), Korean (2), Lebanese (2), Lingala (2), Menon (2), Multilingual in South African languages (2), Sign language (2), Swedish (2), Twi (2). As these figures clearly demonstrate, the sociolinguistic reality of the 70 participants in the present study is that they are multilingual.

Language in education policies for these participants should therefore include multilingual approaches to pedagogies and the language management in general at the institution.

4.2 Languages represented on the portraits and place on the silhouette

In order to make sense of the complexity of the multilingual repertoires, the analysis of languages presented on the portraits and place on the silhouette will be done with the languages that received the most representation (or 50+ mentions on the portraits): English, Afrikaans, Setswana and isiZulu. In Table 2, it is clear that the head/brain, hands, legs and heart were selected most frequently to place the four most prominent languages on the portraits. English is placed mainly in the head of the silhouette, English and Afrikaans are placed in the hands, Afrikaans and isiZulu in the legs and Afrikaans in the heart.

Table 2: Co-occurrences of place on silhouette and the four most prominent languages represented on the silhouette (source: own research)

<i>Place on silhouette</i>	<i>Afrikaans</i>	<i>English</i>	<i>isiZulu</i>	<i>Setswana</i>	<i>Total</i>
Head/Brain	6	30	5	4	45
Hands	10	12	3	5	30
Legs	7	3	7	5	22
Heart	8	3	3	3	17
Arms	4	4	1	5	14
Chest/Torso	5	1	2	6	14
Feet	7	2	3	2	14
Stomach/Mid-body	1	6	2	3	12
Complete silhouette	1	6	0	1	8
Shoulders	3	1	2	1	7
Face	0	2	0	1	3
Half of silhouette	1	1	0	0	2
Elbow	1	0	0	0	1
Lower part of body	0	0	1	0	1
Mouth	0	1	0	0	1
Neck	1	0	0	0	1
Nose	0	0	1	0	1
Spine	1	0	0	0	1
Throat	0	0	0	1	1
Total	56	72	30	37	195

The placement of English in the head of the silhouette is related to its cognitive and education function (see extracts⁶ 1 and 2) and the perception of its importance or status (see extract 3) as a language in the repertoires of the participants:

[1] *The head is like a motherboard of our body, a place where we process information etc.* [Participant 1577, male, Setswana home language speaker, about English as additional language]

[2] *It is in my head, I use almost every day and it is good as an important factor in my life since I got here university.* [Participant 1552, female, isiZulu home language speaker, about English as additional language]

[3] *The face or the head is the most important organ in your body as it consists of the brain, by which it intertwines with the fact that English is mostly used worldwide, however it's important.* [Participant 1978, male, Sepedi home language speaker, about English as additional language]

The placement of English and Afrikaans in the hands on the silhouette indicates the instrumental functions that participants believe they perform with these languages, especially in the domain of reaching out to people and making friends (building relationships).

[4] *We use our arms to give – anything a person would appreciate – food, handshakes and even friendships. I had Afrikaans speaking friends in primary school.* [Participant 1721, non-binary, Setswana home language speaker, about Afrikaans as additional language]

[5] *English is universal, it is the main language of communication in the world. Hands symbolize greeting (wave, handshake), so I chose it because it gives us access to everyone.* [Participant 1195, female, Afrikaans home language speaker, about English as additional language]

isiZulu and Afrikaans are placed in the legs. This placement is linked to the ability of these languages to enable one to communicate with people when one is “on the move”.

[6] *Because legs are like travelling tools, in a black community Zulu is the most spoken language. The language of stoof culture.* [Participant 1577, male, Setswana home language speaker, about isiZulu as additional language]

[7] *Placed by the legs indicating that I am involved more now with Afrikaans people, therefore I am able to walk a different path.* [Participant 2010, female, English home language speaker, about Afrikaans as additional language]

Afrikaans is linked to the heart by home language and additional language speakers.

[8] *I think in Afrikaans but also in English. It differs for different things. In my heart I am Afrikaans.* [Participant 2030, female, Afrikaans home language speaker, about Afrikaans as home language]

[9] *It is close to the heart and Afrikaans are usually people who are generous.* [Participant 1594, no gender reported, Setswana home language speaker, about Afrikaans as additional language]

The main implication for language-in-education policies is that English is linked to the cognitive and education function for these participants; and English and languages like Afrikaans and isiZulu are linked to the function of communicating with people beyond one's home language, also creating proximity which would be conducive for collaboration and the building of relationships.

⁶ The extracts of the participants are represented verbatim without corrections to spelling, syntax or punctuation.

4.3 Languages represented on the portraits and colour on the silhouette

In order to make sense of the complexity of the multilingual repertoires, the analysis of languages presented on the portraits and colour will be done with the languages that received the most representation (or 50+ mentions on the portraits): English, Afrikaans, Setswana and isiZulu.

Table 3: Co-occurrences of colour on silhouette and the four most prominent languages represented on the silhouette (source: own research)

<i>Colour on silhouette</i>	<i>Afrikaans</i>	<i>English</i>	<i>isiZulu</i>	<i>Setswana</i>	<i>Total</i>
Blue	7	13	4	4	28
Red	14	6	4	4	28
Green	8	7	2	10	27
Purple	8	10	1	6	25
Yellow	5	14	2	2	23
Brown	2	4	9	1	16
Orange	2	3	1	3	9
Black	2	0	2	1	5
Peach	1	1	1	0	3
White	0	1	0	0	1
Total	49	59	26	31	165

The most prominent colour used to represent Afrikaans is red. This is used mainly in the context of home language speakers of Afrikaans who express their love for the language.

[10] *Red represents love and I love my home language, Afrikaans.* [Participant 1238, female, Afrikaans home language participant, about Afrikaans as home language]

[11] *Red symbolises love and I love Afrikaans.* [Participant 2028, female, Afrikaans home language speaker, about Afrikaans as home language]

The most prominent colour used to represent English is yellow, which expresses a belief that the language would lead to a bright future.

[12] *Like I have noted in the previous question, it makes me feel bright and also my future as well. Bright colour – bright future.* [Participant 2003, male, Sepedi home language speaker, about English as additional language]

[13] *Yellow is a bright colour and English is a universal language used by almost everyone around the world, so in order for one to have a bright future this is the language they need to know.* [Participant 420, male, isiXhosa home language speaker, about English as additional language]

The most prominent colour used to represent isiZulu is brown, which is linked to a proud racial identity and cultural identity.

[14] *It is because black is the population race I associate myself with, meaning I'm very proud of my skin colour and it is the most dominant race in our country.* [Participant 533, female, Sesotho home language speaker, about isiZulu as additional language]

[15] *The colour represents the traditional Zulu attire.* [Participant 1184, male, isiZulu home language speaker, about isiZulu as home language]

The most prominent colour used to represent Setswana is green, which is related to nature and calm peacefulness.

[16] *I chose the colour green because for me it symbolises nature, realness and authenticity. I am Tswana ...* [Participant 1615, female, Setswana home language speaker, about Setswana as home language].

[17] *Tswanas are calm and relaxed people, so green represents their calm nature. They are also peaceful.* [Participant 1700, female, Sesotho home language speaker, about Setswana as an additional language]

The relationship between English and bright futures (symbolised by the choice of yellow to represent English) links the conceptualization of the language as one fostering upward mobility. The role of English within the language repertoires of these multilingual participants as language linked to progress is clear. *One implication for language-in-education policies is to not ignore this language as part of the languages used in education.*

4.4 Co-occurrences of place of language on silhouette and 21st-century skills

This first attempt to interpret the information on language portraits in terms of the 21st-century skills is still preliminary and the analysis may have to be improved over time with more experience with these codes. One first needs to note that some 21st-century skills are not represented in this first attempt to code language portraits to identify relationships between languages as skills. Creativity and Operational skills were not coded in this first attempt. Operational skills are linked closely to the information technology environment and the template of a human silhouette seems to not lend itself to this code. The absence of Creativity as a code could change if the number of portraits included in the analysis is increased.

Table 4: Co-occurrences of places on the silhouette and 21st-century skills (source: own research)

<i>Place on silhouette</i>	<i>Communication</i>	<i>Collaboration</i>	<i>Critical thinking</i>	<i>Problem-solving</i>	<i>Information management</i>	<i>Total</i>
Head/Brain	15	13	7	0	2	37
Hands	16	11	1	1	0	29
Legs	11	13	2	0	0	26
Feet	14	11	0	0	0	25
Arms	13	7	0	2	0	22
Stomach/Mid body	7	2	1	0	0	10
Face	5	3	0	1	0	9
Complete silhouette	3	5	0	0	0	8
Heart	5	3	0	0	0	8
Mouth	3	1	0	0	0	4
Chest/Torso	3	0	0	0	0	3
Ears	2	1	0	0	0	3

<i>Place on silhouette</i>	<i>Communication</i>	<i>Collaboration</i>	<i>Critical thinking</i>	<i>Problem-solving</i>	<i>Information management</i>	<i>Total</i>
Nose	1	1	0	0	0	2
Knee	0	0	1	0	0	1
Shoulders	1	0	0	0	0	1
Throat	1	0	0	0	0	1
Total	100	71	12	4	2	189

The 21st-century skill communication is represented in the hands, head/brain, feet, arms and legs on the silhouette. The references to hands, feet, arms and legs represent the link between communication skills and its role to foster progress or advancement.

[18] *The leg symbolises movements, I want to learn this language before I start my career since the language is dominant, in order to move up academically I need the language.* [Participant 1100, female, Venda home language speaker, about Afrikaans as additional language placed in the legs on the human silhouette]

[19] *Because legs are like travelling tools, in a black community Zulu is the most spoken language. The language of stoof culture.* [Participant 1577, male, Setswana home language speaker, about isiZulu as additional language placed in the legs on the human silhouette]

The link of communication to the brain/head is related to the brain's role as creator or place where communication originates.

[20] *Head symbolises beginning or leadership. The body cannot function without the head. Similarly, Tshivenda is my home language – my root – my foundation – my head.* [Participant 53, female, Venda home language speaker, about placing Venda as home language in the head on the human silhouette]

[21] *It is the language I use when “talking to myself”, that is, it is then head, and it is my home language hence it covers the area where my heart is.* [Participant 93, male, Venda home language speaker, about placing Venda as home language in the head on the human silhouette]

The same places relate to collaboration, which possibly indicates the close relationship between communication as a tool to foster and support collaboration.

References to critical thinking as a 21st-century skill are mostly related to the head/brain.

[22] *English is usually the first language I utter something out in, it is constantly in my head at all times* [Participant 1972, female, isiZulu home language speaker, about English as additional language represented in the head on the human silhouette]

[23] *Blue represents wisdom, in South Africa, English is a medium of instruction, thus knowing English means that you can engage in an intellectually stretching conversation with anyone.* [Participant 1617, female, Sesotho home language speaker, about English as additional language represented in the head on the human silhouette]

The implications for language-in-education policies from this analysis is that language portraits seem to be related to the 21st-century skills of communication and collaboration, and to a lesser extent critical thinking. English is mainly represented in the head or brain and should therefore be included in language-in-education policies for these participants. There are more languages than English related to communication and collaboration. Teaching these languages in an education institution would be important.

4.5 Co-occurrences of place of language on silhouette and functions of languages on the portrait

The cognition function is related to languages placed in the brain on the human silhouette of the portrait participants (see extracts 1–3 above). The identity function is related to languages placed in the heart on the human silhouette of the portrait participants (see extracts 8–9 above). The communication function is related to languages placed in the peripheral or functional spaces on the human silhouette of the portrait participants (see extracts 4–7).

Table 5: Co-occurrences of place on silhouette and functions of language on the portrait (source: own research)

<i>Place on silhouette</i>	<i>Communication</i>	<i>Identity</i>	<i>Cognition</i>	<i>Total</i>
Head/Brain	18	16	22	56
Hands	22	1	9	32
Heart	7	21	3	31
Legs	15	8	3	26
Arms	15	4	2	21
Feet	13	6	1	20
Stomach/Mid body	9	6	3	18
Chest/Torso	3	7	1	11
Complete silhouette	5	3	0	8
Face	4	3	1	8
Mouth	4	2	0	6
Shoulders	0	4	2	6
Ears	3	0	0	3
Knee	1	1	1	3
Half of silhouette	0	2	0	2
Male part	0	1	0	1
Nose	1	0	0	1
Spine	0	1	0	1
Total	120	86	48	254

4.6 Co-occurrences of place of language on silhouette and role of languages in the repertoire

The additional and home languages are represented in the head or brain. The home language is most prominent as being represented in the heart on the human silhouette. The additional languages are represented prominently in more peripheral spaces like the legs, hands, arms and feet.

Table 6: Co-occurrences of place of languages on the portrait and roles of languages (source: own research)

<i>Place on the silhouette</i>	<i>Additional language</i>	<i>Home language</i>	<i>Desired language</i>	<i>Heritage language</i>	<i>Total</i>
Head/Brain	30	24	1	1	56
Legs	34	4	11	0	49
Hands	38	4	4	0	46
Heart	11	21	3	4	39
Arms	23	5	1	3	32
Feet	19	3	7	0	29
Chest/Torso	10	11	2	2	25
Stomach/Mid body	13	2	6	2	23
Shoulders	7	1	2	1	11
Complete silhouette	5	2	2	1	10
Face	6	1	0	0	7
Mouth	3	2	2	0	7
Ears	1	0	3	0	4
Neck	2	2	0	0	4
Half of silhouette	1	1	0	0	2
Knee	0	1	0	1	2
Spine	1	1	0	0	2
Elbow	1	0	0	0	1
Liver	0	0	1	0	1
Lower part of body	1	0	0	0	1
Male part	0	0	0	1	1
Nose	1	0	0	0	1
Throat	1	0	0	0	1
Total	208	85	45	16	354

English as additional language is represented prominently in the head or brain on the human silhouette by these participants.

[24] *I associate English with the mind because intellectuals across the different parts of the world use the language to communicate; English could in a way be described as the “universal” language.* [Participant 1573, male, Setswana home language speaker, about placing English in the head or brain]

[25] *The head is like a motherboard of our body, a place where we process information etc. I placed English on the head because it represents diversity, it’s the one language that unites people of all races.* [Participant 1577, male, Setswana home language speaker, about placing English in the head or brain]

African home languages are also represented prominently in the head or brain on the human silhouette.

[26] *Head symbolises beginning or leadership. The body cannot function without the head. Similarly, Tshivenda is my home language – my root – my foundation – my head.* [Participant 53, female, Tshivenda home language speaker, about Tshivenda placed in the head or brain on the human silhouette]

[27] *I chose this place [the head] because I was born knowing Sepedi, if I lose it I will be losing everything I have.* [Participant 1444, male, Sesotho home language speaker, about Sepedi placed in the head or brain on the human silhouette]

[28] *Northern Sotho is my home language, my roots and I will never forget that it will always be stored in my cerebrum* [Participant 1508, male, Sepedi home language speaker, about Sepedi placed in the head or brain on the human silhouette]

Home languages are represented prominently in the heart on the human silhouette.

[29] *This is the first language I learnt and used it mostly in my days, so it is in my heart* [Participant 1990, male, Sesotho home language speaker, about placing Sesotho in the heart on the human silhouette]

[30] *Zulu is dear to me in my heart. Zulu is my home language and I am fluent in it.* [Participant 1972, female, isiZulu home language speaker, about placing isiZulu in the heart on the human silhouette]

[31] *In the chest, there is a rib cage that protects the heart, my heart is content with the fact that I love my home language.* [Participant 1617, female, Sesotho home language speaker, about placing Sesotho in the heart on the human silhouette]

Additional languages are represented in a range of peripheral places on the human silhouette, often indicating their great instrumental value related to the building of relationships.

[32] *It is on the legs because it is of the languages that most people use to interact.* [Participant 1616, female, Sepedi home language speaker, about placing Setswana in the legs on the human silhouette]

[33] *Placed by the legs indicating that I am involved more now with Afrikaans people, therefore I am able to walk a different path.* [Participant 2010, female, English home language speaker, about placing Afrikaans in the legs on the human silhouette]

[34] *Because it is a very useful language and the most important language in the world.* [Participant 2026, female, Afrikaans home language, about placing English in the arms on the human silhouette]

The most important implication from these sets of findings is that the home language and English are represented in the head or brain. These languages therefore both have a potential role to play in language-in-education policies.

4.7 Co-occurrences of roles of language and 21st-century skills

Communication and collaboration are the two 21st-century skills that emerged as the most prominent skills from the analysis of the language portraits for these participants. There are some references to critical thinking as a skill and because of the potential relationship between critical thinking skills and language-in-education, this theme will also be included in the analysis. Communication, collaboration and critical thinking are related most prominently to the additional languages represented in the language portraits.

Table 7: Co-occurrences of 21st-century skills and roles of languages on the language portraits (source: own research)

<i>21st-Century Skill</i>	<i>Additional</i>	<i>Home</i>	<i>Desired</i>	<i>Heritage</i>	<i>Total</i>
Communication	85	9	9	3	106
Collaboration	77	7	7	0	91
Critical thinking	8	2	1	0	11
Problem-solving	3	0	0	0	3
Information management	2	0	0	0	2
Creativity	1	0	0	0	1
Total	176	18	17	3	214

The additional languages on the language portraits assist with communication. This is illustrated well in the language portrait of participant 93 when he refers to the additional languages in his repertoire and communication:

[35] *It helps make communication easier with other people.* [Participant 93, male, Venda home language speaker, about Afrikaans as additional language]

[36] *It helps me communicate with others easier.* [Participant 93, male, Venda home language speaker, about Sesotho as additional language]

[37] *It helps make communication easier.* [Participant 93, male, Venda home language speaker, about isiZulu as additional language]

English as additional language is also viewed by participants as a very useful communication language.

[38] *English is the common language in many areas, it's a helping hand if I'm in a place where I don't know the language.* [Participant 1100, female, Venda home language speaker, about English as additional language]

[39] *I feel like English is a global language, especially when travelling to different places it will help.* [Participant 507, female, Venda home language speaker, about English as additional language]

[40] *English is a Lingua Franca (global language), so wherever I am on the universe it should always be on the tip of my tongue.* [Participant 1508, male, Sepedi home language speaker, about English as additional language]

A range of additional languages are viewed as helpful in the context of fostering conditions for collaboration between people.

[41] *Most places I go to I communicate in Sepedi, it helps me make friends. Right leg, because my right leg is the strongest.* [Participant 53, female, Venda home language speaker, about Sepedi as additional language]

[42] *Zulu is one of the most spoken languages as the arms are important to carry things.* [Participant 157, male, Venda home language speaker, about isiZulu as additional language]

[43] *English is the common language in many areas, it's a helping hand if I'm in a place where I don't know the language.* [Participant 1100, female, Venda home language speaker, about English as additional language]

[44] *Green colour in our feet as believed by the Afrikaans people that when we move together we can go far.* [Participant 1189, male, Sesotho home language speaker, about Afrikaans as additional language]

Critical thinking as a 21st-century skill is mainly related to the role of English as additional language in this data set.

[45] *English has been the medium of instruction in all the schools I have attended. I understand and interpret scenarios in English.* [Participant 1629, female, Setswana home language speaker, about English as additional language]

[46] *I think in English and communicate in English most of the time. My exams are in English and the poems I write are also in English. Most of my music is in English, hence the speaker's on my entire body.* [Participant 500, female, Venda home language speaker, about English as additional language]

The implications for language-in-education policies from this set of data are that English is prominent as a language of critical thinking. However, a range of additional languages (including English) is regarded as helpful for communication and collaboration. In terms of language-in-education policies, the role of English as medium of instruction seems important, but the role of teaching additional languages as subjects that participants can take to learn more languages, so that they can be used as languages of communication and collaboration, should not be excluded.

4.8 Co-occurrences of roles and functions of languages on the language portraits

The inter-connectedness between the roles of the languages on the portraits and the functions that these languages perform is clear from Table 8.

Table 8: Co-occurrences of functions and roles of languages on the language portraits (source: own research)

<i>Function in repertoire</i>	<i>Additional language</i>	<i>Home language</i>	<i>Desired language</i>	<i>Heritage language</i>	<i>Total</i>
Cognition	34	7	1	0	42
Communication	84	12	14	2	112
Identity	35	63	11	15	124
Total	153	82	26	17	278

The prominence of the additional languages is visible in that additional languages are the most prominent languages used for communication and cognition based on the analysis of the language portraits of the participants. The usefulness of the additional African languages as languages of communication emerged as an important theme in the data.

[47] *Most places I go to I communicate in Sepedi, it helps me make friends. Right leg, because my right leg is the strongest.* [Participant 53, female, Venda home language speaker, about Sepedi as additional language]

[48] *It helps me communicate with others easier.* [Participant 93, male, Venda home language speaker, about Sesotho as additional language]

[49] *Gauteng is dominated by Zulu people, if you want to survive there you are compelled to speak Zulu.* [Participant 1172, female, Venda home language speaker, about isiZulu as additional language]

The dominance of English as language of cognition emerged from the analysis.

[50] *Blue represents wisdom, in South Africa, English is a medium of instruction, thus knowing English means that you can engage in an intellectually stretching conversation with anyone.* [Participant 1617, female, Sesotho home language participant, about English as additional language]

[51] *Having gone to schools where English is the medium of instruction all my life, it is easier for me to gather my thoughts and words in English.* [Participant 1859, female, Setswana home language speaker, about English as additional language]

The identity function is performed most prominently by the home language (see extracts) and the heritage languages (see extracts).

[52] *Setswana is my home language and hence the foundation of my being.* [Participant 1624, female, Setswana home language speaker, about Setswana as home language]

[53] *In the chest, there is a rib cage that protects the heart, my heart is content with the fact that I love my home language.* [Participant 1614, female, Sesotho home language speaker, about Sesotho as home language]

[54] *The head is the most important part of the body, so IsiZulu is the most important language to me since it's my home language or mother tongue. It's my pride.* [Participant 1915, male, isiZulu home language speaker, about isiZulu as home language]

[55] *It is next to the heart because it is my second language that I can fluently speak, apart from my home language, it is very important to me and close to my heart because my father is Venda.* [Participant 1616, female, Sepedi home language participant, about Venda as a heritage language]

[56] *It is my paternal side, and it was the second language I learnt to understand.* [Participant 1188, female, Sepedi home language speaker, about Setswana as a heritage language]

The implications for language-in-education policies are that from this data set, the prominence of English as a language of education and cognition cannot be ignored. Language-in-education policies aimed at reflecting the sociolinguistic realities of these participants should include English. At the same time, the important role of the home language and heritage languages in making students feel at home at institutions of education should not be under-estimated.

5 Discussion of main findings

The main finding of this study is that the participants display typical multilingual profiles that are also reported for South African students at other institutions. For these participants, it is true that “sets of languages, rather than single languages [...] perform the essential functions of communication, cognition and identity” (Aronin & Singleton, 2012, p. 43). Language-in-education policies for these students should therefore aim at multilingual language management and exploring ways in which to provide multilingual pedagogies and a multilingual dispensation in university administration and university life in general.

Considering the four most reported languages in the portraits (English, Afrikaans, isiZulu and Setswana), it is clear from the inferences related to the placement of these languages on the human silhouette that the languages perform different functions. Additional languages like English are mainly placed in the head on the portrait and this signifies the relationship between English and cognitive and educational functions in the repertoires of these participants. However, African home languages are also placed in the head on the portraits, and this indicates that the cognitive, educational and possibly critical thinking functions are performed by English and the home languages. The potential “bilingual constellation” for literacy situated within the broader multilingual repertoires of the participants should be considered when language-in-education policies are developed. Within broader multilingual pedagogies, it might, for example, be possible to phase in bilingual reading materials and bilingual assessment.

Additional languages also perform important functions within the domain of communication and its potentially related function of fostering conditions for collaboration between multilingual people. Additional languages like Afrikaans, isiZulu and English are

placed in the hands, arms, legs and feet of the portraits, which are related to actions like reaching out and getting closer to people and places. In this sense, these additional languages are very useful instruments in the repertoires of the participants. Higher education institutions should potentially create opportunities for students to take language courses so that students can develop communicative skills in these and other languages.

When one relates the 7 C's to placement on the portraits and the roles that languages play in the portrait data, it is clear that the languages placed in the hands, arms, feet and legs relate to the 21st-century skills of communication and collaboration; and the 21st-century skill of critical thinking is related to languages placed in the head or brain. These 21st-century skills are all performed by additional languages.

The home languages are clearly related to the identity function. These languages are placed in the heart on the portraits. The passionate connection between Afrikaans as a home language is also signified by the selection of red to represent this home language in the hearts of the language portraits. isiZulu is mainly represented by the colour brown in this data set, which also relates strongly to the proud racial and cultural identity linked to the language by the participants. Setswana is related mainly to the colour green in this data set, which is an expression of the perception among the participants that the cultural identity of Setswana speaking people is calm and natural. English is mainly represented with yellow in this data set, which links to the perceptions of the participants about the potential of the language to open up possibilities for advancement in their lives. The implications of these findings for the language-in-education policies for these students are that one should create an educational environment where students could feel secure in their home languages and cultural identities while they acquire and polish their skills in English, which they believe would support their progress in education and beyond university. The notion of establishing an environment where students could develop roots and wings (a conceptualization also used by Robb, 1995, p. 22) in a safe space should be captured in language-in-education policies for these participants.

6 Conclusion

The analysis approach towards the language portraits seems to hold great potential to link the information provided in language portraits more directly to language-in-education policies. Establishing a standardised code book for this purpose seems to be a sensible endeavour to work on.

In conclusion, one should remember that South African urban students are in a greatly advantaged position in multilingual contexts nationally and internationally. They have been exposed to a deeply multilingual context where there is long-standing multilingualism at a national level. These experiences as multilingual individuals put them at a great advantage in international contexts where individual and societal multilingualism might have only become ordinary in more recent times (due to current intensified migration patterns that would challenge long-standing histories and practices of one-language-one-nation ideologies). The multilingual socio-historic position of South African students remains a worthwhile context to study that could inform higher education institutions who are new to multilingual higher education about potentials and about pitfalls.

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References

- Aronin, L. & Singleton, D. (2012). *Multilingualism* (Vol. 30). John Benjamins Publishing. <https://doi.org/10.1075/impact.30>
- Billing, D. (2003). Generic Cognitive Abilities in Higher Education: An International Analysis of Skills Sought by Stakeholders. *Compare: A Journal of Comparative and International Education*, 33 (3), 335–350. <https://doi.org/10.1080/03057920302596>
- NWU (North-West University). (2021). *NWU Integrated Annual Report*. <https://www.nwu.ac.za/sites/www.nwu.ac.za/files/files/i-institutional-information/annual-report/IR-2021/NWU-Integrated-Report-2022-ENG.pdf>
- Oliver, B. & Jorre de St Jorre, T. (2018). Graduate Attributes for 2020 and beyond: Recommendations for Australian Higher Education Providers. *Higher Education Research and Development*, 37 (4), 821–836. <https://doi.org/10.1080/07294360.2018.1446415>
- Peters, A. & Coetzee-Van Rooy, S. (2020). Exploring the Interplay of Language and Body in South African Youth: A Portrait-Corpus Study. *Cognitive Linguistics*, 31 (4), 579–608. <https://doi.org/10.1515/cog-2019-0101>
- Rios, J., Ling, G., Pugh, R., Becker, D. & Bacall, A. (2020). Identifying Critical 21st-Century Skills for Workplace Success: A Content Analysis of Job Advertisements. *Educational Researcher*, 49 (2), 80–89. <https://doi.org/10.3102/0013189X19890600>
- Robb, H. (1995). Multilingual Preschooling. In K. Heugh, A. Siegrühn & P. Plüddemann (Eds.), *Multilingual Education for South Africa* (pp. 15–22). Heinemann Educational Books.
- Tight, M. (2021). Twenty-First Century Skills: Meaning, Usage and Value. *European Journal of Higher Education*, 11 (2), 160–174. <https://doi.org/10.1080/21568235.2020.1835517>
- Trilling, B. & Fadel, C. (2009). *21st Century Skills: Learning for Life in Our Times*. Jossey-Bass.
- Van Laar, E., van Deursen, A.J.A.M., van Dijk, J. & de Haan, J. (2017). The Relation between 21st-century Skills and Digital Skills: A Systematic Literature Review. *Computers in Human Behavior*, 32 (72), 577–588. <https://doi.org/10.1016/j.chb.2017.03.010>
- Van Laar, E., van Deursen, A.J.A.M., van Dijk, J. & de Haan, J. (2020). Determinants of 21st-century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review. *Sage Open*, 1–14. <https://doi.org/10.1177/2158244019900176>

Washer, P. (2007). Revisiting Key Skills: A Practical Framework for Higher Education. *Quality in Higher Education*, 13 (1), 57–67. <https://doi.org/10.1080/13538320701272755>

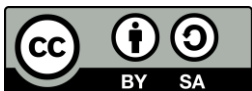
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