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The hidden curriculum in environmental education: mobility represented in EFL coursebooks and examination materials

While there is growing demand that schools should educate students to be environmentally conscious citizens, the covert messages the texts in some educational materials convey may run counter to this expectation. The article discusses the findings of research conducted to evaluate the covert content of three advanced-level EFL coursebooks and twelve sets of secondary school-leaving examination materials used in Hungarian secondary schools for their suitability for environmental education. Mobility was selected for investigation for its particularly strong environmental impact. In an attempt to explore the hidden curriculum of educational materials, the research employs quantitative, content-analytical methods, comparing the frequencies of different forms of mobility occurring in the materials, and comparing these to real-life patterns of mobility. The findings indicate that environmentally harmful forms of mobility, such as driving and flying, are heavily overrepresented in the EFL coursebooks investigated, and partially in the examination materials, in sharp contrast with the aims of environmental education.

Keywords: content analysis, educational ecolinguistics, EFL coursebook, environmental education, hidden curriculum

1. Introduction

In recognition of the growing threat of the environmental crisis, currently one of the greatest challenges humankind needs to deal with, recent trends in education have been assigning an increasingly important role to environmental awareness. Several publications have drawn attention to the shortcomings of school coursebooks in meeting these expectations (e.g., Mercer et al., 2023; Rác, 2022; UNESCO MGIEP, 2017). However, it has rarely been examined whether the covert, implicit content of educational materials conforms to the aims of environmental education.

Environmental education aims at increasing young people's awareness of the challenges the environment is facing, developing the necessary skills to address these challenges, and fostering attitudes and motivation to make informed decisions and take responsible action (United Nations Environment Programme, 1978). It is a fundamental component of education for sustainable development (Ramírez Suárez

et al., 2023), as well as of global education, incorporating, e.g., planetary sustainability and climate justice (GENE, 2022).

Teachers, educational stakeholders, and educational material developers all have a great responsibility in inculcating the values of environmental consciousness in future generations (UNESCO MGIEP, 2017). The UN has repeatedly urged member states to place more emphasis on environmental awareness in education (e.g., UNESCO, 2022; UNESCO MGIEP, 2017). The Education 2030 Agenda, along with other UNESCO documents, emphasizes the need to include environmental and climate action as a curriculum component in all core subjects (UNESCO, 2021). They stress the necessity of integrating environmental learning across the curriculum. That is, rather than being relegated to science classes only, the values of environmental education are to be transmitted through all school subjects, including English as a foreign language (EFL).

Hungary, like the other UN member states, has pledged to integrate the above principles into its own school curriculum, e.g., in the National Sustainability Strategic Framework (Hungarian National Council for Sustainable Development, 2013), and in the Government Decree on the Concept for Global Responsibility Education in Formal and Non-Formal Education in Hungary (Hungarian National Legislation Database, 2016). The National Core Curriculum of 2012 (110/2012. Korm. rendelet, 2012) also stresses that “the aim is for an environmentally friendly and sustainable behaviour to become a defining characteristic for students, based on the knowledge and love of nature and the environment”. In a similar vein, the Strategic Plan on Public Education for 2021-2030 (Hungarian Ministry of Human Resources, 2020) maintains that environmental education is to be given special attention in education. Both curricular and extracurricular activities must include content that is suitable for developing students’ environmental awareness. The document also underlines that environmental education, in combination with education for sustainable development, is one of the seven developmental pathways deemed the most significant for students’ coordinated intellectual-mental-physical development. With regard to EFL education in secondary schools, the requirements are similar: the Guide to Frame Curricula, issued by the Hungarian Educational Authority (2020), recommends that in secondary education, 6 to 10% of all EFL lessons be devoted to “environment and nature”, with topics including climate change, pollution, extinction, alternative energy sources, waste management, and nature conservation.

Texts contained in educational materials may influence students in a number of ways (Curdt-Christiansen, 2021; Timothy & Obiekezie, 2019). Not only can they affect cognitive development, but attitude formation as well, potentially being translated into behavioural modifications. These effects may be brought about by

overt and covert content. Educational materials may exert an influence on students overtly through the choice of topics included in them, as well as the extent and depth of their coverage. Regarding environmental education, this may mean including reading passages or prompts for discussion on global warming, recycling, or species extinction, for instance. At the same time, educational materials may also have a covert effect on students through modelling, by presenting certain lifestyles, behaviours, and everyday choices that students may accept as natural, internalise, and imitate. Educational materials thus have the potential to shape students' attitudes, perceptions, and behaviour.

There may be a sharp contrast between the overt and covert agendas of educational materials as regards environmental education. For instance, a coursebook may include a number of topics intending to raise environmental awareness, while at the same time frequently presenting people engaged in environmentally harmful behaviours. One case in point, which the present research has intended to investigate, is the issue of mobility. While mobility is only one of the many fields where day-to-day choices have a substantial effect on the environment, it was singled out as the focus of the present research due to its disproportionately heavy environmental impact. The everyday choices one makes regarding how to travel to school or work, whether to use public transport or drive a car, or whether and how often to fly to a holiday destination, may have a drastic impact on the environment: transport accounts for about one quarter of carbon dioxide emissions globally (Ritchie, 2023). Within household consumption, mobility has been demonstrated to be the largest contributor to CO₂ emissions in the EU (Ivanova et al., 2016) as well as in the USA (Center for Sustainable Systems, University of Michigan, 2025).

Research into the implicit, covert content of EFL educational materials with respect to environmental education has been scarce on a global scale. The research presented in this article focuses on this issue. Employing a quantitative, content-analytical methodology, it investigates the extent to which various forms of mobility, differing in their environmental harm, are presented in various educational materials. The research seeks to answer the following questions:

- What are the relative frequencies of occurrence of different forms of mobility depicted in the selected EFL coursebooks and in the examination materials?
- Are there any differences between the portrayals of mobility in the coursebooks and the examination materials, in terms of frequencies of occurrence?
- How do these frequencies compare to real-life behaviours regarding mobility?

Based on the results, conclusions are drawn as to whether the covert content of the educational materials examined conforms to the aims of environmental education.

2. Review of the literature

The theoretical framework of the study is provided by educational ecolinguistics. While ecolinguistics encompasses a broad range of disciplines, one of its main strands focuses on the role of language in dealing with environmental problems, either aggravating or solving them (Penz & Fill, 2022). One of the aims of ecolinguistic research is to create more awareness of the effect of language on pressing ecological issues, such as the degradation of the environment or climate change. It is also used to draw attention to language practices of semantic engineering, greenwashing, or instances of anthropocentrism, which may further hinder the finding of effective solutions to environmental problems.

Educational ecolinguistics, in particular, is defined by Alexander & Stibbe (2014) as the study of the impact language has on the relationships of humans, other organisms, and the environment, with a normative orientation. Educational ecolinguistics is described by Steffensen (2024) as a critical subdiscipline of linguistics linked to environmental education, while it has also been employed to uncover language use in educational contexts that propagates ideologies detrimental to the environment (Zahoor & Janjua, 2020).

The concept of the hidden curriculum was introduced in Jackson's pioneering book "Life in Classrooms" (1968), referring to hidden values, norms, and beliefs passed on, especially in school settings. These are, in contrast with the academic demands of the official curriculum, not taught openly, but rather implicitly. Jackson emphasizes the role of education as a socialisation process. In Jackson's original use, the expression largely refers to institutional expectations, but gradually it has gained a wider scale of use, meaning any values, beliefs, or behavioural patterns implicitly taught in formal education, whether intentionally or unintentionally. The effects of the hidden curriculum are often positive, such as in reinforcing socially acceptable behavioural norms, but may also be negative, e.g., by propagating undesirable, outdated, or even harmful practices (e.g., Lee, 2014). Elements of the hidden curriculum may not only be passed on by teachers and by the peer group, but also by educational materials, such as coursebooks.

One of the key mechanisms by which hidden curricula can operate is numerical representation (Brown, 2024), the frequency with which certain people, objects, activities, or phenomena are depicted in educational materials. One example of this is when marginalised groups in society may be practically invisible in textbooks, sending the message that these groups are less important. The study of such numerical representations may also be fruitful in research on environmental

education, by comparing the occurrence of environmentally friendly vs. unsustainable behaviours.

Several studies have investigated the explicit environmental content found in EFL coursebooks. Such were those published by Jacobs and Goatly (2000), Xiong (2014), Rácz (2019, 2022), and Veszelinov (in press), which primarily focused on the extent of environmental content of coursebooks, and invariably found such content to be minimal.

The hidden curriculum of EFL educational materials has rarely been targeted by research. One such study was carried out by Stibbe (2004), who used critical discourse analysis to uncover the ideologies transmitted by EFL coursebooks. Stibbe argues that coursebook writers often unquestioningly adopt and spread environmentally harmful ideologies, and that the English language tends to act as “a medium for the propagation of ecologically destructive values” (p. 257).

Brown (2024) investigated the hidden curriculum in a large number of EFL teaching materials. His findings indicate that while several of these materials overtly support sustainability, the majority implicitly promote environmentally harmful norms. The author emphasises the strong positive associations frequently attached to consumption found in EFL materials, and argues that this may inculcate consumerist norms in students. He also points to the strong representation of tourism prevalent in EFL materials, despite its harmful effects.

Further studies in the field include those carried out by Zahoor and Janjua (2020) and Tatin et al. (2024). These authors used an ecolinguistic approach to examine EFL coursebooks. They concluded that environmental discourse in the coursebooks mainly transmits anthropocentric perspectives rather than ecocentric values, and therefore, the pedagogical merit of the coursebooks is rather limited regarding environmental education.

To the author’s knowledge, the hidden curriculum of EFL coursebooks has scarcely been investigated regarding mobility, despite its outstanding importance in environmental education. The present study aims to fill this research gap.

3. Methodology

The study employs the principles of textbook analysis, described by Weninger (2018) as a line of research mapping the meanings encoded in the textual choices made in textbooks, with the purpose of uncovering the worldviews presented to students through these choices. Textbook analysis aims to draw objective observations, which may inform materials production and educational decision-making (Vitta, 2021).

One of the main frameworks for textbook analysis is content analysis, as described by Krippendorff (2004). Content analysis involves the use of sampling units, coding units, and context units. Sampling units are textual samples with natural boundaries

to be selected for inclusion in an analysis. Coding units are precisely defined units of analysis within the sampling units. They are preferably small, in order to increase the reliability of the coding process. They constitute closed categories based on criteria established a priori. Employing rigorous methodology, the frequency of occurrence of each coding unit is registered. These frequency values are the quantitative data obtained by the research. The third type of unit of analysis, the context unit, helps to identify or clarify the meaning of a coding unit in a given context. Context units typically surround coding units and are not analysed numerically.

In the present study, sampling units were entire coursebooks or the full twelve-set series of examination materials examined, context units were coursebook exercises and examination tasks. Coding units were chosen to be sentences, deliberately selected for their shortness, in order to ensure precision and high reliability of coding. The methodology followed that of a small-scale preliminary investigation based on one of the three coursebooks analysed in the present study (Veszelinov, 2024).

The educational materials investigated included coursebooks and examination materials. The coursebooks analysed were the third edition of *English File Advanced* (Latham-Koenig et al., 2015a, 2015b), *Pioneer C1/C1+* (Mitchell & Malkogianni, 2017a, 2017b), and the third edition of *Solutions Advanced* (Falla et al., 2017, 2018). The three series were selected as they are among the most frequently used coursebooks in Hungarian secondary schools. All three were published in the UK and sold worldwide for a young adult market. All three were approved for use in Hungarian state schools (Hungarian Educational Authority, 2023) at the time the research was undertaken, and provided for students free of charge. The advanced language level (corresponding to C1 on the CEFR scale) was opted for as this segment appears to be heavily underrepresented in recent EFL research conducted in Hungary, despite the recent increase in demand for advanced level coursebooks (M. György, Educational Consultant, Oxford University Press, personal communication, 5 Feb, 2026) When the coursebooks were selected for inclusion in the study, their publication dates were also considered. It was supposed that the authors of more recent publications might show more awareness of the need for environmental education; therefore, coursebooks with minimal differences in their years of publication were chosen. The total contents of both the student's book and the workbook of the same level of each series were submitted to analysis; that is, altogether six volumes were analysed, including all appendices. The data for each corresponding student's book and workbook, referred to collectively as one coursebook, were pooled and analysed together.

As high-stakes examinations are known to have a substantial washback effect on the teaching-learning process, the written materials of the Hungarian official secondary school leaving EFL examination, also known as the Matura examination,

were also analysed. The advanced-level Matura examinations were selected for analysis, as their required level of language proficiency corresponds better to the examined coursebooks than the proficiency expected at the basic level.

With Matura examinations held twice a year, two sets of examination materials are available per year. All the advanced-level EFL examination materials published between October 2019 and May 2025, that is, twelve sets, were examined (Hungarian Ministry of Human Resources, 2019-2025a, 2019-2025b). All the written examination materials available were included in the analysis, including the reading passages, the use of English and listening tasks, the instructions, and the prompts for the writing tasks, published in test packages, and the transcripts of the listening materials following the exams. The total length of the twelve examination sets together was estimated to be 4188 sentences, based on a sentence count of one randomly selected set.

The carbon footprint of travel was used as a means of comparing the environmental effects of the various modes of transport. It is measured in grams of carbon dioxide equivalent per passenger kilometre, that is, the greenhouse gases emitted per person to travel one kilometre (Ritchie, 2023).

Different modes of mobility were separated for analysis. The categories were established through an iterative process by employing the constant comparative method (Glaser, 1965). The following four basic categories were established: cars (including taxis), planes (referring to passenger air travel), public transport (including urban and non-urban forms of transport, i.e., buses, trains, underground and light rail services, coaches and trams), and active mobility (walking and cycling). These categories show characteristic differences in their environmental effect, as reflected in their carbon footprint. The average carbon footprint of petrol- or diesel-fuelled cars is estimated to be c. 170g per passenger kilometre. Due to a lack of data in the texts, the study did not consider the varying environmental impacts of cars based on fuel type, such as electric or hybrid models. Planes, with carbon footprints ranging between c. 150 and 250g depending on distance covered, show carbon footprints similar to cars. The carbon footprint of public transport shows a wide range, typically not exceeding 100g, with almost zero (4g) for certain long-distance railways. In comparison with public transport, travelling by car as well as flying tends to produce several times as much carbon dioxide equivalent per passenger kilometre as taking public transport, the difference varying from twofold to almost fortyfold (Ritchie, 2023).

The carbon footprint of active mobility, that is, walking and cycling, is higher than zero, due to increased metabolism and, e.g., the manufacture of bicycles. For cycling, estimates vary between 16 and 50g (Ritchie, 2023). Still, the carbon emissions

associated with active mobility are very low; therefore, for short trips, they tend to be the most carbon-efficient means of transport.

Based on the above, the four categories of transport show a strong contrast, with cars and planes representing environmentally harmful behaviours, while public transport and active mobility account for environmentally friendlier choices.

Data collection was limited to texts, rather than visual content such as illustrations. The first round of data collection was carried out manually, owing to the large number of potential search words, some of which might have been omitted if a list of search words assembled a priori had been employed. A digitalised search complemented the initial, manual phase of data collection. Employing both a manual and a digitalised means of data collection ensured greater reliability. The digitalised search was performed by scanning the contents of the coursebooks, done for the research only. This was followed by converting the documents into an OCR (optical character recognition) format, using the PDF converter programme pdf24 (<https://www.pdf24.org>). In the digitalised search, the list of search words assembled during the manual search phase was employed, comprising a total of 52 search words. Each item identified in the digitalised search had to be checked in context to ensure all items were relevant to the topic of mobility. Intra-rater reliability was checked by recoding one of the six volumes, the full workbook of *English File*, three to four weeks after the first instances of coding, both in the manual and in the digital round of data collection. In order to increase reliability, a sentence-level analysis was opted for in the study. Tallies were kept of sentences fitting each of the four categories of mobility. The resulting frequency data and percentage values calculated from them were employed for purposes of comparison.

4. Results and discussion

4.1. A comparison of the three EFL coursebooks

In all three coursebooks, cars were the most prevalent form of transport (Table 1), constituting nearly half (46%) of all references to mobility in total (Figure 1). The representation of cars showed similar values across coursebooks, ranging between 41 and 49% (Figure 2). As opposed to cars, public transport consistently scored very low across the three coursebooks. The highest of these was 18% in *Solutions*, while in *Pioneer*, public transport only accounted for 13% of all instances of mobility in the coursebook, and was the least frequent of the four forms of mobility. The combined value for public transport in all three coursebooks together is the lowest of all forms of mobility (16%, Figure 1).

Table 1. Number of sentences with references to different types of mobility in the three coursebooks compared

	<i>English File</i>	<i>Pioneer</i>	<i>Solutions</i>	Total of each type of mobility in the three coursebooks
Cars	203	195	237	635
Planes	161	54	83	298
Public transport	78	52	92	222
Active mobility	54	94	90	238
Total	496	395	502	1393

Figure 1. A comparison of the four categories of mobility for the three coursebooks combined (sentence-level occurrences)

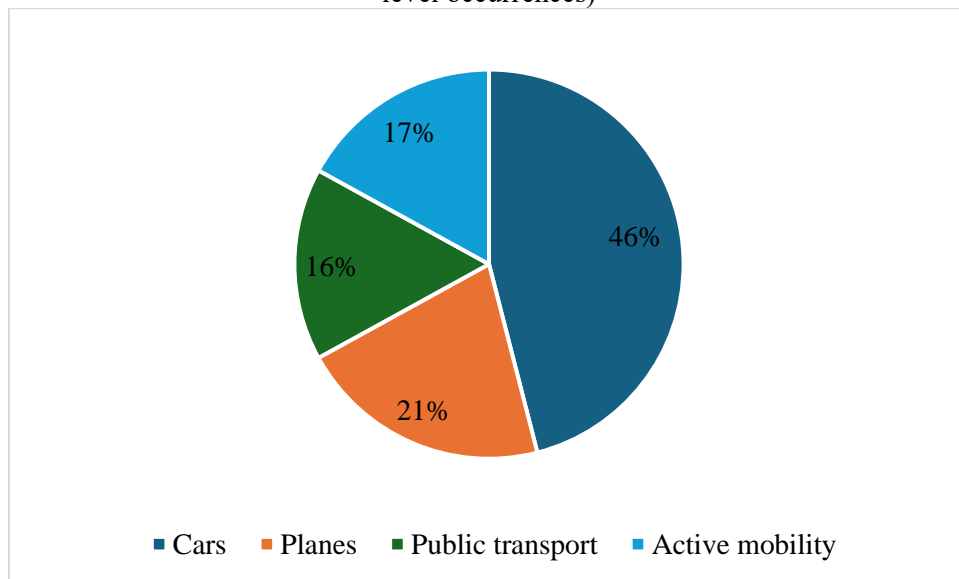
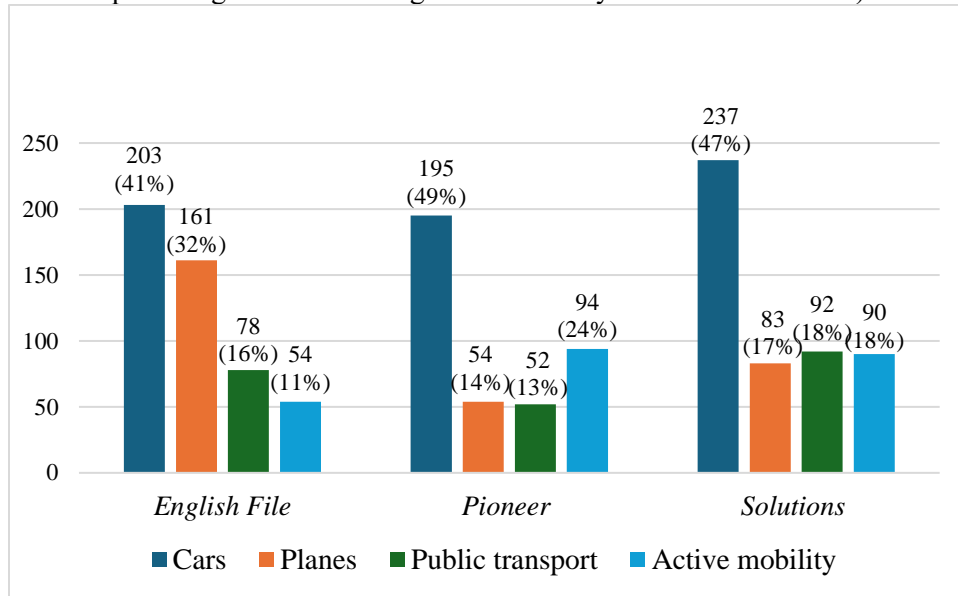


Figure 2. Different types of mobility: a comparison of the three coursebooks (number of sentences and percentages of the total figure for mobility for each coursebook)



Cars were favoured above public transport in all cases, but to differing extents. Both in *English File* and in *Solutions* cars occurred c. two and a half times as frequently as public transport did (*English File*: 41% vs. 16%; *Solutions*: 47% vs. 18%). *Pioneer* stood out in this respect with cars featuring nearly four times as often as public transport (49% vs. 13%).

The results for active mobility were the following. The combined percentage value for the three coursebooks was only slightly higher for active mobility than for the least frequently featured type of mobility, public transport (17% vs. 16%, respectively). However, this value showed considerable variation across coursebooks. While in *Pioneer*, active mobility accounted for nearly a quarter of all results, surpassing both planes and public transport. In *English*, this category remained largely inconspicuous, reaching 11% of all the occurrences of mobility. In the latter coursebook, cars featured nearly four times as often as active mobility did (41% vs. 11%).

Perhaps the most striking results were the ones related to flying. In *Solutions*, the frequency of flying was on a par with public transport and with active mobility (17%, 18%, and 18%, respectively). In *Pioneer*, references to flying were similar to those of public transport (14% and 13%). In *English File*, however, flying showed a much higher prevalence. It was referred to twice as often as public transport (32% and 16%, respectively), and three times as often as walking and cycling combined (32% and 11%, respectively). Indeed, in *English File*, flying accounted for one-third of all the sentences related to mobility. In short, flying, a heavily polluting means of transport,

is grossly overrepresented in all coursebooks, especially in *English File*, with frequencies depicting air travel as if its use were a widespread daily routine.

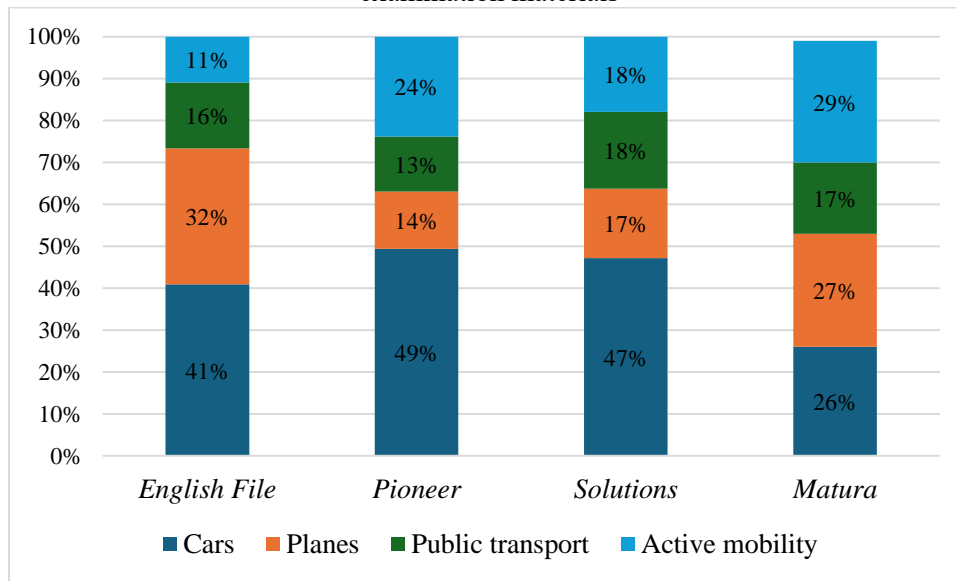
Overall, all three coursebooks contain a disproportionately large number of references to environmentally harmful forms of mobility. *English File* fares the worst in this respect, where cars and planes combined account for nearly three-quarters of all forms of mobility. Environmentally more conscious options, such as public transport and active mobility, are rarely depicted in the coursebook. The other two coursebooks have slightly more favourable proportions of representing environmentally friendly vs. harmful means of transport, but in both, cars and planes dominate, with combined figures of 63% of all references to mobility in *Pioneer* and 64% in *Solutions*.

From the results above, it may be concluded that the depiction of different forms of mobility runs counter to the aims of environmental education in all three coursebooks. While there are variations in their extent, in all three coursebooks, heavily polluting modes of transport, such as cars and planes, dominate.

4.2. A comparison of the EFL coursebooks to the Matura examination materials

The results from the coursebooks were also compared to similar data gleaned from the twelve sets of advanced-level Matura examination materials. There were some striking differences in the distribution of the data, which are illustrated in Figure 3 and described in the following.

Figure 3. Relative frequencies of mobility: a comparison of the EFL coursebooks and the Matura examination materials



Compared to the three coursebooks described above, the four types of mobility are more evenly distributed in the Matura examination materials, with all four values ranging between 17 and 29%.

When the coursebooks and the Matura sets were compared with respect to each type of mobility, perhaps the most outstanding difference was the one relating to cars. While in all three coursebooks cars featured with far higher frequencies than any other types of mobility (41 to 49%, Figure 2), in the Matura sets they did not take a dominant place, accounting for only 26% of all references to transport.

A further interesting difference was related to active mobility. While in the three coursebooks active mobility only played a minor role (11% to 24%, with a combined value of 17%), it took the most prominent place of all four forms of mobility in the Matura examination materials, reaching 29%. With respect to cars as well as active mobility, the behaviours depicted in the Matura tasks appear to be far more environmentally conscious than those in the coursebooks.

Concerning public transport, the figures were the lowest of the four forms of mobility in the Matura sets (at 17%), similarly to the combined figures for the three coursebooks (16%, Figure 1). That is, there were no observable differences in terms of public transport between the coursebooks and the examination materials.

In light of the above, the high number of references to air travel in the Matura tasks was rather surprising. Flights were depicted in the Matura tasks with a frequency similar to that of cars or of active mobility, representing flying as if it were an everyday occurrence. A comparison of the frequencies of references to planes in the coursebooks (14, 17, and 32%) to the figure for the Matura sets (27%) indicates that flying occurs more frequently in the Matura sets than in two of the three coursebooks, with only *English File* presenting an environmentally more deleterious model.

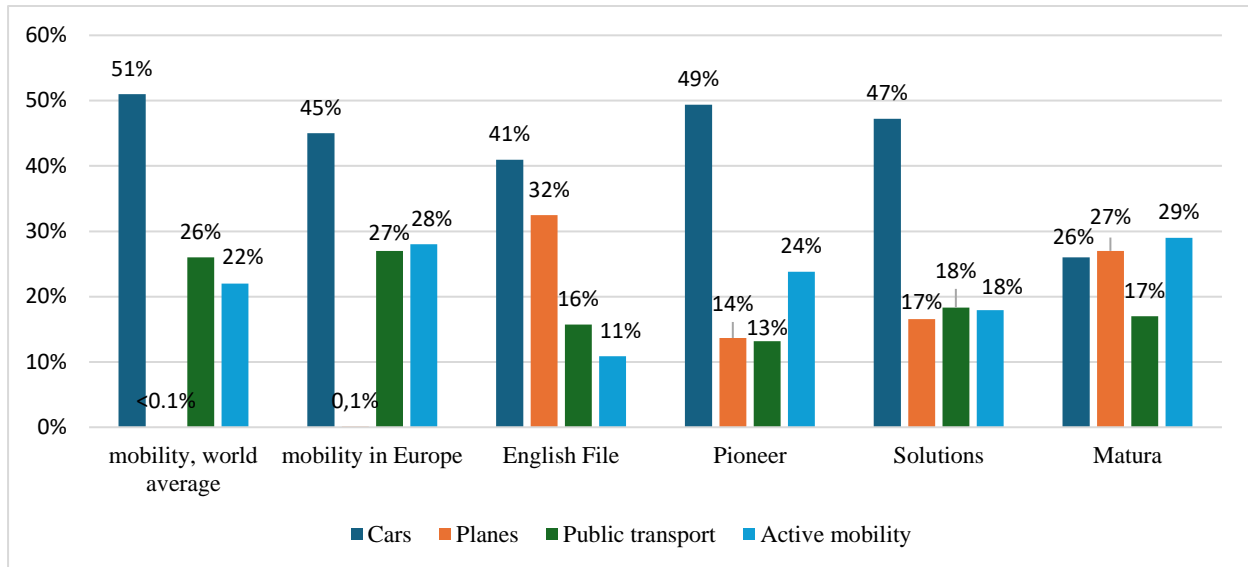
To sum up the results obtained for the Matura examination materials, the four types of mobility do not show large differences in occurrence within these materials. Active mobility takes the first place, in sharp contrast to data gleaned from the coursebooks. Cars are not depicted as a highly dominant form of transport, as opposed to each of the three coursebooks. Planes, however, feature high relative frequencies.

Overall, due to the high incidence of the representation of active mobility and the low representation of cars, Matura examination materials appear to be far more in accordance with the aims of environmental education than any of the three coursebooks investigated. On the other hand, the frequent depictions of air travel in the Matura tasks detract from the environmental educational value of the materials.

4.3. A comparison of the EFL educational materials to real-life behaviours in terms of mobility

Even if the coursebooks fall short of the goals of environmental education, they might be relatively accurate representations of real-life conditions. The next step of data analysis aimed to investigate this hypothesis. Data for comparison were taken from three sources (Prieto-Curiel & Ospina, 2024; Statista Research Department, 2024; UK Department for Transport, 2019), and are represented jointly in Figure 4. Data for land transport was taken from Prieto-Curiel and Ospina's large-scale research study, which assessed the frequency of use of travel modes in 800 cities worldwide, in 61 countries, focusing on urban weekday transportation. The three main modes of travel compared were cars, urban public transport, and active mobility (especially walking and cycling). In Figure 4, world average data are shown as well as average data for Europe. The latter were included since the coursebooks were all published in the United Kingdom, while the books are largely targeted at European markets. As Prieto-Curiel and Ospina's study focused on land transport, aviation data were taken from two different sources. According to statistics provided by Statista Research Department (2024), the global average frequency of flying is one journey every two years. For European citizens, the figure is markedly higher. The values calculated for UK citizens were used as an approximation for the whole of Europe, which is circa one instance of flying annually, according to the data issued by the UK Department for Transport (2019). Considering that the number of trips per citizen, by whatever means of transport, is almost 1000 annually in the UK, the frequency of flying in Europe is estimated to be approximately 0.1% of all instances of travel. The same figure is estimated to be well below 0.1% on average worldwide.

Figure 4. Relative frequencies of mobility: a comparison of real-life values and depictions in the EFL educational materials examined



When comparing the relative frequencies of different types of mobility in the coursebooks and in the Matura examination materials to the real-life figures described above (Figure 4), several differences are noticeable. Perhaps the most conspicuous one is the extreme, several hundredfold, overrepresentation of air travel both in the coursebooks – especially in *English File* – and in the Matura examination materials. It could be argued that travel and tourism are among the traditional central topics of teaching English as a foreign language, hence the great emphasis on air travel. Including the vocabulary of air travel in a coursebook at a low language proficiency level is warranted. However, in advanced-level coursebooks, the highly frequent references to air travel do not appear to be justified, as these rarely present new lexical items, speech acts, or skills development activities that could not be based on another topic or a more environmentally friendly treatment of the topic of travelling.

A further difference between real-life frequencies of travel modes and their representations in the teaching materials is the use of public transport. It is underrepresented in all three coursebooks and in the Matura examination materials as well (with 13 to 18% frequencies). However, in reality, it accounts for a considerably higher proportion of transport (26% on a world average and 27% in Europe) than what teaching materials indicate.

Regarding active mobility, the Matura sets give a fairly accurate representation of their relative weight in daily mobility, especially when compared to figures for Europe (29% vs. 28%). Meanwhile, all three coursebooks show active mobility to be less widespread than it is in fact in Europe (Europe, real-life figures: 28%,

coursebook representations: 11 to 24%). The world average for active mobility appears to be below the European values at 22% only, but even compared to that, two of the three coursebooks, *English File* and *Solutions*, underrepresent the weight of this type of mobility.

Unfortunately, the use of cars accounts for approximately half of all instances of urban personal transport worldwide, at 51%, according to the statistics cited above. This figure is lower in Europe, at 45%. Car use figures in the three coursebooks, ranging from 41 to 49%, appear to be fairly accurate representations of these real-life values – if the aim is to mirror real-life conditions. If the coursebooks are expected to convey environmentally conscious attitudes and present students with suitable behavioural models, however, such frequent portrayal of car use should be avoided.

Overall, when comparing real-life mobility figures to the frequencies of occurrence in the educational materials analysed, the most notable findings are the following. Use of public transport, an environmentally friendly behavioural model, is consistently underrepresented in all the materials examined, whereas flying, an environmentally harmful model, is greatly overrepresented. In terms of both car use and active mobility, Matura sets present students with behavioural models that are much more in accordance with the expectations of environmental education than the models the three coursebooks offer.

5. Conclusion

The contents of written educational materials may serve as models for students, potentially leading not only to attitudinal changes but to behavioural modifications as well. Through their choice of words, topics, and practices represented, the authors of educational materials may have a powerful influence on the environmental consciousness of future generations. Thus, their responsibility cannot be neglected.

The main aim of the present study was to investigate how far the selected EFL educational materials conform to the aims of environmental education in terms of their covert content regarding mobility. It was demonstrated that the coursebooks examined portray driving and flying extensively, to the detriment of public transport and active mobility. Thus, they all present students with frequent, environmentally harmful behavioural models. Matura examination materials represent a more environmentally conscious attitude, which could further be improved if future publications featured less frequent references to flying.

One of the limitations of the research is that it singled out one environmentally potentially harmful aspect of behaviour, mobility, to focus on. While choices regarding mobility have the greatest impact on an individual's ecological footprint, there are various other aspects of behaviour that should also be considered, such as

food or shopping, for instance. Future studies should be extended to investigate these areas as well.

Another limitation may be that the study did not target the potential overt messages in the educational materials examined, which are relevant to environmental education and, in particular, to mobility. It may be worthwhile to investigate these in conjunction with the covert messages to uncover any possible discrepancies. Future studies are planned to address this issue.

Yet another topic for further research is the positive and negative connotations that different types of mobility carry in educational materials. This investigation is planned for a further stage of the research.

The implications of the study are relevant for materials designers, educational decision makers, and also for practising teachers. When assembling educational materials, great care should be taken to select texts that are suitable for the aims of environmental education. In the selection process, not only the explicit contents, but also the hidden agenda should be considered, such as the behavioural models presented. Teachers are encouraged to evaluate the educational materials they use critically, and to complement them with more suitable texts, or even to strive to counteract the negative influences the hidden agenda of some coursebooks may have on students' environmental consciousness.

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