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D4.6 Midterm Recruitment and Implementation Progress Report – Study 2

Deliverable No.	D4.6	**Due Date**	30/04/2026
Description	This deliverable presents the midterm progress on recruitment and implementation for Study 2 within the SUNRISE project. It provides an overview of recruitment performance across pilot sites, assesses progress against reported targets, and describes how the classroom-based recruitment pathway has been implemented under different educational and institutional conditions. The report also identifies key barriers, implementation challenges, and deviations from the original plan, and documents the mitigation strategies applied across sites. Finally, it discusses implications for study feasibility, comparability, and subsequent evaluation activities (WP5).		
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Abstract

This deliverable (D4.6) presents the midterm recruitment report for Study 2 of the SUNRISE project. Study 2 evaluates a classroom-based intervention in which educators implement a set of digital tools within regular school lessons. For this reason, recruitment depends not only on school participation, but also on teacher engagement, consent procedures, class organisation, baseline completion, and the practical fit of the intervention within routine teaching.

By late March 2026, Study 2 had reached 1,929 completed baseline assessments across the consortium. Progress, however, is uneven across sites. The Basque Country has already exceeded its reported target, while Greece and Belgium have also achieved comparatively high baseline numbers. Slovenia and Valencia show steady progress, whereas Romania, Cyprus, and Switzerland remain at earlier stages of completion relative to their reported targets, despite ongoing recruitment activity.

The midterm evidence indicates that recruitment in Study 2 is workable across diverse educational settings, but that it requires substantial coordination at school level. Several sites introduced practical adjustments during recruitment, including simpler consent routes, additional school outreach, more direct classroom support, and flexible baseline formats adapted to local timetables. In light of the remaining site-level variation, the consortium agreed to extend the recruitment window through October 2026. This extension remains compatible with the overall project schedule and provides additional room for sites that need to continue recruitment into the next academic cycle.

Overall, the midterm results indicate that Study 2 is progressing across sites and has reached a substantial proportion of the planned recruitment. While variability across countries is evident, these differences are primarily driven by contextual implementation conditions rather than by inconsistencies in the study design. From a project perspective, recruitment remains feasible, with mitigation measures already in place to support completion within the extended recruitment window.

Legal Notice

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Acronyms

Acronym	Meaning
AMEU	Alma Mater Europaea University
BBHRI	Biobizkaia Health Research Institute
FAVO	Federazione Italiana delle Associazioni di Volontariato in Oncologia
FISABIO	Foundation for the Promotion of Health and Biomedical Research of Valencia Region
GDPR	General Data Protection Regulation
HMU	Hellenic Mediterranean University
IOCN	Oncology Institute "Prof. Dr. Ion Chiricuță"
ISGF	Swiss Research Institute for Public Health and Addiction
OSA	Osakidetza
PASYKAF	Cyprus Association of Cancer Patients and Friends
UGENT	Ghent University

1. Introduction

Recruitment in Study 2 is closely linked to implementation and cannot be considered as a purely administrative or numerical process. Evidence shows that digital and school-based interventions for changes in adolescent health behaviour depend not only on adoption, but also on contextual factors such as school organisation, teacher engagement, available resources, and the quality of implementation [1–4]. This is particularly relevant in classroom-based programmes, where the practical integration of activities into routine teaching determines whether interventions can move from initial agreement to actual delivery.

Study 2 of the SUNRISE project is designed as a multicentre, multinational school-based study targeting students aged 10 to 19 years. In contrast to Study 1, which focuses on a predefined digital intervention, Study 2 follows a more flexible implementation model. Educators are expected to select and apply a set of digital tools through the Authoring Tool and the wider implementation framework, adapting content to the age group and classroom context [5,6]. As a result, recruitment in Study 2 involves more than student enrolment. It depends on school agreement, teacher participation, consent procedures, class organisation, and the feasibility of completing baseline assessment within the school timetable.

This difference is central to the interpretation of recruitment in Study 2. Recruitment is not a discrete phase preceding implementation, but an integral part of classroom planning and early delivery. Progress therefore depends on whether teachers can allocate lesson time, coordinate consent, organise classes, and integrate baseline completion into routine teaching activities. For this reason, recruitment outcomes should be understood as an early indicator of implementation feasibility rather than as a stand-alone measure of enrolment.

With this in mind, Deliverable D4.6 provides a structured midterm overview of recruitment progress in Study 2 across the participating pilot sites. It describes how the common recruitment pathway has been operationalised under different educational conditions, identifies the main barriers and adaptations observed during implementation, and assesses the extent to which recruitment is progressing in line with study objectives. The findings also contribute to WP4 monitoring and provide key input for subsequent evaluation activities in WP5.

2. Recruitment progress overview

Recruitment progress in Study 2 is summarised in Table 1. This overview provides a midterm snapshot of the extent to which each pilot site has progressed towards its reported recruitment target and the level of baseline completion achieved across the consortium. Given the classroom-based nature of Study 2, these figures should be interpreted not only as enrolment indicators, but also as a proxy for early implementation feasibility within routine school practice.

Table 1. Recruitment progress across pilot sites

Pilot site	Partner	Schools contacted	Schools recruited	Reported target	Baseline completed	Recruitment progress (%)
Greece	HMU	5	2–3	320	275	85.9
Belgium	UGENT	59	6–8	350	291	83.1
Slovenia	AMEU	6	3	267	178	66.7
Spain – Valencia	FISABIO	7	3	107	62	57.9
Spain – Basque Country	OSA	15	8	533	624	117.1
Italy	FAVO	72	2	640	233	36.4
Romania	IOCN	17	6	1,067	161	15.1
Cyprus	PASYKAF	25	5	160	23	14.4
Switzerland	ISGF	n/a*	35	639	82	12.9
Total		**206 + n/a***	**73-75**	**4,083**	**1,929**	**47.3**

*Totals are based on reported figures across sites. Switzerland is excluded from “schools contacted” due to the decentralised recruitment model. Ranges reflect ongoing recruitment at the time of reporting.

By late March 2026, a total of 1,929 students had completed the baseline assessment across the consortium. The total reported recruitment target across sites is 4,083 students, meaning that current baseline completion represents approximately 47.3% of the planned sample. This indicates meaningful progress at the consortium level, although performance remains heterogeneous across sites.

To support the interpretation of recruitment progress across sites, Figure 1 presents the absolute number of baseline completions in relation to the reported recruitment targets.

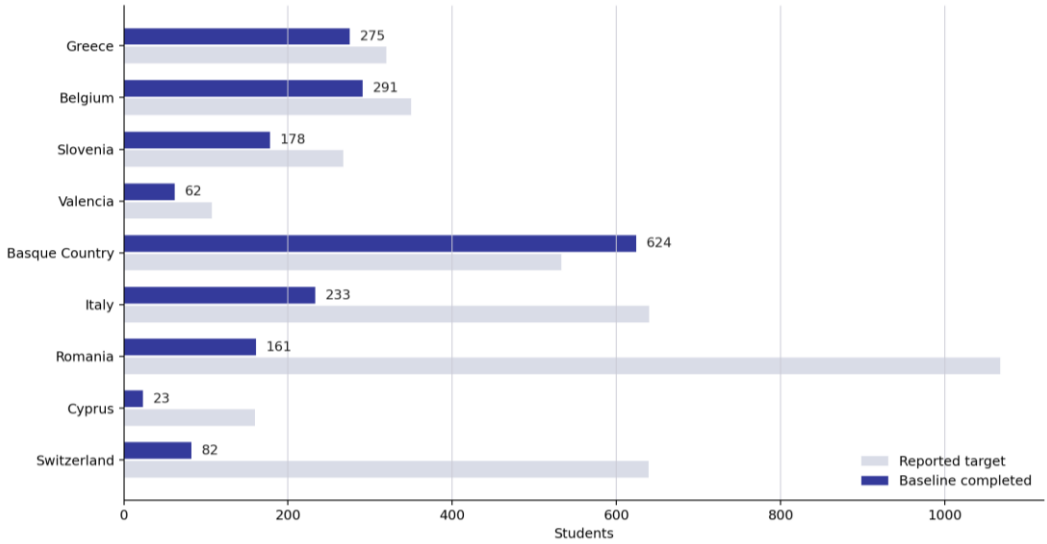

Figure 1. Study 2 recruitment progress by pilot site

As shown in Figure 1, recruitment performance varies considerably across sites. The Basque Country has exceeded its reported target, while Greece and Belgium show strong progression towards completion. Slovenia and Valencia demonstrate moderate but steady progress. In contrast, Romania, Cyprus, and Switzerland remain at earlier stages relative to their targets, despite ongoing recruitment efforts. Italy presents a mixed situation, with a relatively high number of completions in absolute terms but still a substantial gap relative to its target.

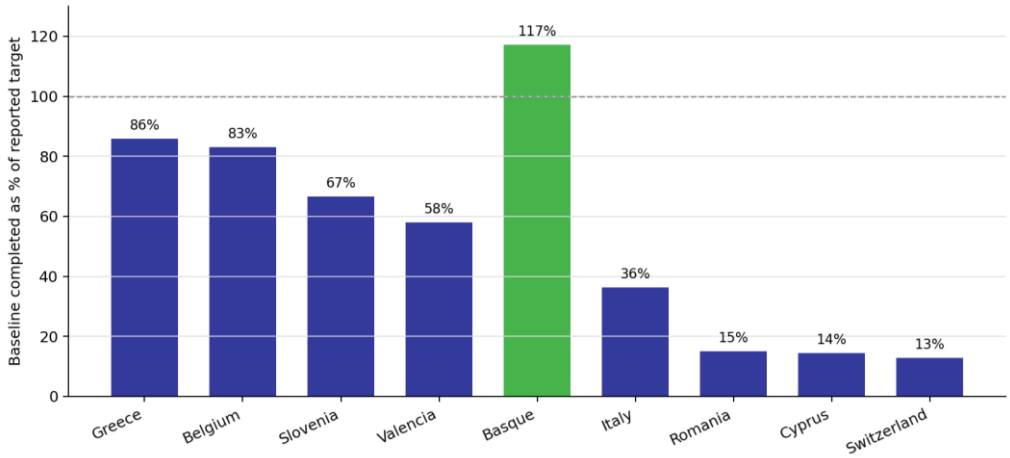

Figure 2. Baseline completion relative to the reported target

From an implementation perspective, recruitment efficiency differs across sites primarily due to variations in teacher engagement, lesson time allocation, and the feasibility of integrating the programme into routine classroom practice. Unlike Study 1, where the main bottleneck was the transition from consent to baseline completion, Study 2 introduces an additional critical constraint: the need to secure sufficient classroom capacity and teacher commitment to support both baseline assessment and subsequent intervention delivery.

A second factor influencing recruitment progress is the operational burden associated with Study 2. Several sites report that the longer baseline questionnaire, the younger age profile of participants, and the increased classroom time required have made Study 2 more difficult to schedule than Study 1. In some settings, this has led schools to prioritise participation in the less demanding study when both could not be accommodated equally well.

Overall, the midterm picture confirms that recruitment in Study 2 is feasible across diverse educational systems, but feasibility depends on local implementation conditions. Unlike Study 1, where the primary blockage was the transition from consent to baseline completion, Study 2 introduces a more embedded constraint as progression depends on the ability to align study procedures with classroom organisation, teacher capacity, and school planning cycles. Sites that have managed this alignment are advancing steadily; those that have not are likely to require targeted support in the second half of the recruitment period.

3. Schools contacted for Study 2 that did not enter the study

In addition to the schools that participated in Study 2, the pilot teams also contacted a wider group of schools that did not go on to take part. This section complements the recruitment figures presented in Chapter 2. Together, these figures give a fuller picture of the recruitment effort across sites.

Table 2. Schools contacted for Study 2 that did not enter the study

Pilot site	Schools contacted that did not enter Study 2	No response after contact	Active refusals or partial non-participation	Main reasons reported
Belgium	70	40	30 active refusals	Delayed decisions, lack of institutional approval, limited school interest
Italy	69	63	6 active refusals; 3 class-level cases	Time constraints, low perceived benefit, consent burden, limited staff availability
Spain – Basque Country	14	3	11 active refusals	Insufficient curriculum time and delayed internal decisions
Cyprus	13	3	10 active refusals	Limited school interest, competing activities, insufficient curriculum time
Romania	9	3	6 active refusals; 2 partial cases	Insufficient curriculum time, competing priorities, staff availability
Spain – Valencia	4	1	3 active refusals	Insufficient curriculum time and programme burden

Greece	0 school-level denials	0	3 partial class-level cases	Time constraints, perceived complexity, limited parental engagement and digital barriers
Switzerland	n/a	n/a	n/a	Decentralised recruitment; refusals are not systematically recorded

Across the reporting sites, the most common pattern is not formal refusal after extended negotiation, but the fact that schools were contacted and, despite follow-up, did not move into participation. This is especially visible in Belgium and Italy, where the number of contacted schools that did not enter Study 2 is particularly high.

In the other sites, the main reasons are more closely tied to the classroom-based demands of Study 2. The Basque Country, Cyprus, Romania, and Valencia all report that curriculum time, internal school priorities, or limited staff availability affected whether schools could proceed from interest to participation. Greece is different, since the available material does not point to school-level refusal, but rather to partial non-participation at class level once schools had already agreed to take part. Switzerland also needs to be interpreted separately, because its decentralised model does not generate centrally comparable refusal data.

These data show that recruitment in Study 2 depends not only on initial school interest, but also on whether schools feel able to incorporate the programme into their timetable, staffing arrangements, and internal organisation.

4. Recruitment procedures across pilot sites

In Study 2, recruitment functioned less as a stand-alone enrolment process and more as the first stage of classroom implementation. Across sites, schools were not only asked whether they wished to participate, but also whether teachers could identify appropriate classes, allocate lesson time, manage consent procedures, and accommodate baseline completion before introducing the selected tools. As a result, the practical route into schools was shaped as much by teaching arrangements as by school-level agreement itself.

A first group of sites relied mainly on existing school networks and structured teacher coordination. In Greece, schools were approached through municipal principal meetings and prior collaboration, and once they agreed, teachers facilitated access to classes and supported registration during in-class sessions. Belgium also worked through established school networks, using email, phone calls, and Teams meetings to secure participation before organising baseline sessions jointly with schools. In Valencia, schools were identified through regional mapping with priority given to FISABIO-linked schools, and teachers played a central role in family communication, class scheduling, and the organisation of baseline sessions during tutoring or regular lesson time.

A second pattern is visible in sites where recruitment depended strongly on close classroom support after school agreement had already been secured. In Slovenia, the main issue was not access to schools, but helping students complete the early study steps reliably, which is why the process shifted towards more researcher-led in-class support. Romania followed a more structured school-entry route through education authorities and local mapping, but similarly relied on the research team being present during baseline sessions to keep completion consistent and manageable. In Cyprus, recruitment also became closely tied to implementation planning, since teachers were involved not only in distributing consent forms but also in selecting tools and identifying how delivery could fit within class schedules.

A third pattern is observed in the Basque Country and Italy, where the key issue was not simply access to schools, but the practical integration of the programme into existing school routines. In the Basque Country, recruitment drew on direct contact, alumni links, and public health networks, but the process moved forward only once teachers had helped define the participating classes and assess implementation fit. In Italy, recruitment was more formalised, beginning with systematic school mapping and phone outreach, followed by the identification of teacher liaisons who could coordinate classes, consent return, and baseline workshops. In both sites, participation depended on whether the study could be translated into a workable classroom format rather than remaining an external proposal.

A fourth and distinct pattern is observed in Switzerland, where recruitment was based on a decentralised, practice-based model in which regional addiction prevention centres worked through their existing relationships with schools. In most cases, teachers mainly supported scheduling and classroom integration, while baseline sessions were conducted during regular lessons by study staff or prevention-centre staff. This approach reduced some of the school-entry burden observed in other sites, although Study 2 remained more demanding to schedule than Study 1, as the baseline typically required approximately two lessons rather than one.

Overall, recruitment in Study 2 was closely tied to the practical entry of the programme into routine teaching. What varied across sites was not only access to schools, but the extent to which schools, teachers, and research teams were able to coordinate effectively to enable classroom delivery from

the outset. These findings reinforce the role of organisational and teaching-related factors as key determinants of implementation feasibility in school-based interventions.

The different recruitment pathways and approaches described above are summarised in Figures 3 and 4.

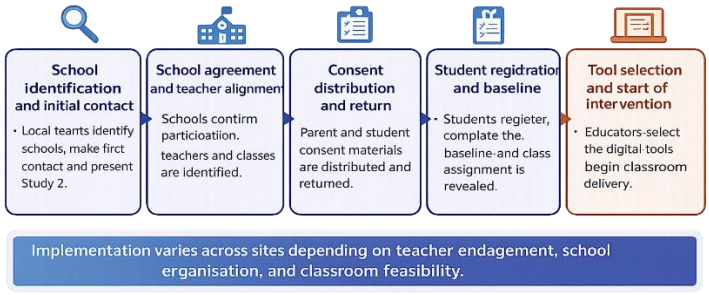

Figure 3. Study 2 recruitment and implementation pathway

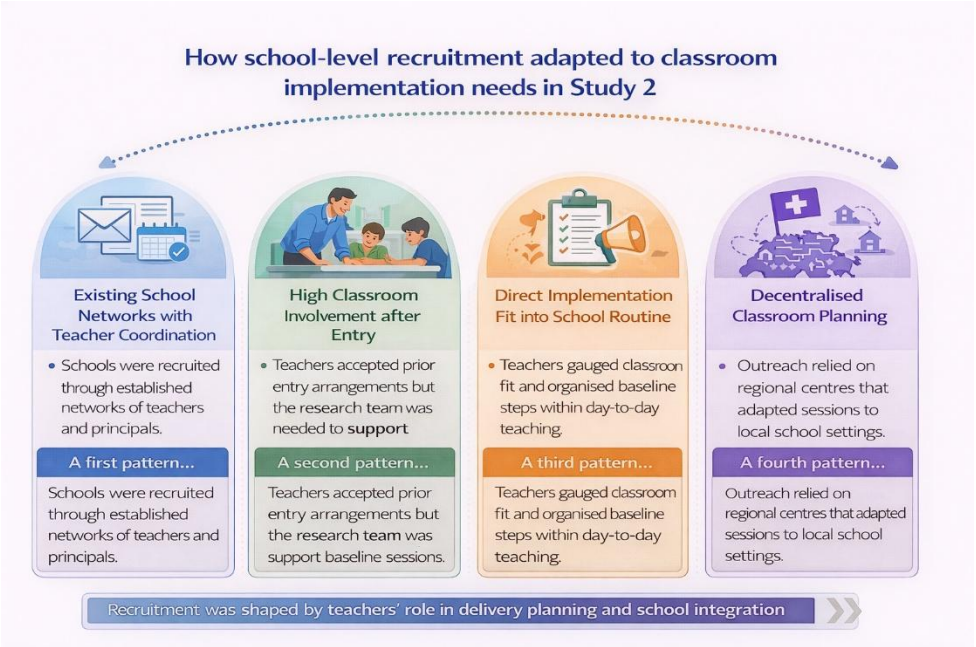

Figure 4. Recruitment approaches used in Study 2: entry routes into schools

5. Participant profile

Participants in Study 2 were recruited through schools and classes rather than through targeted selection of specific student groups. The study therefore brings together pupils from a wide age span and from different educational stages, depending on how each pilot site organised implementation locally. Across the consortium, the reported study population covers students approximately between 10 and 19 years of age, although in practice many sites are working predominantly with younger cohorts than in Study 1.

A second defining feature is that participation is structured at class level. Students enter the study because a school agrees to participate, teachers identify suitable classes, and baseline completion is then organised within those classes. As a result, the Study 2 sample is shaped less by individual-level recruitment dynamics than by the educational structure and organisational characteristics of participating schools.

The available site material indicates that the sample spans a wide range of educational and socio-demographic contexts rather than a single type of setting. Across the consortium, efforts have been made to include schools from different educational stages (primary and secondary), as well as diverse geographical and institutional contexts, including urban and rural areas, and both public and private schools with varying levels of available resources.

In addition, several sites report participation from socially heterogeneous populations, including students from lower socio-economic backgrounds, migrant communities, and other potentially vulnerable groups. While the study was not designed to target specific vulnerable populations, this diversity reflects the real-world implementation approach of SUNRISE and increases the relevance of the findings for different educational and social contexts across Europe.

At site level, some differences are also observed. In Valencia, participating schools are mainly urban or peri-urban and include students from varied sociocultural backgrounds. In the Basque Country, participants are predominantly drawn from primary education, resulting in a younger implementation profile within Study 2. Romania reports participation mainly from urban schools with mixed socio-economic backgrounds, while Cyprus describes a socially diverse middle-school population. Switzerland also includes schools from different regions and organisational contexts.

For interpretation, it is important to consider not only who the participants are, but what their profile implies for implementation. Several sites note that younger students require more structured support during onboarding, additional explanation of study procedures, and more classroom time to complete baseline assessment. In this sense, the Study 2 participant profile is not only broader in age range, but also more demanding from an implementation perspective, as successful recruitment depends on how well the study can be delivered within routine teaching conditions across diverse school environments.

6. Consent process

In Study 2, the consent process was not only a formal requirement for participation, but also one of the main points at which school organisation, family communication, and classroom planning came together. Because the study is delivered through schools and classes, consent had to be completed early enough for teachers and research teams to organise baseline sessions within the school timetable. In practice, this meant that the consent pathway worked best when it could be handled through familiar school routines rather than through stand-alone procedures outside the school setting. This highlights that consent in Study 2 is not a discrete procedural step, but an integral component of implementation, directly influencing the feasibility of classroom delivery.

A first pattern observed across sites corresponds to paper-based or school-mediated systems. Several sites relied on forms distributed and collected through schools, often with teachers acting as the key link between families and the research team. Belgium used paper forms together with Smartschool-supported communication, while Italy combined paper forms with the school electronic register. Romania allowed schools to choose between paper and electronic return depending on local preference. In all three cases, the common feature was not a single preferred format, but the effort to align consent collection with school practice rather than treating it as an external administrative task.

A second pattern is visible in sites where the main difficulty lay in family response rather than in the consent model itself. Valencia reports that the process in Study 2 was more demanding than in Study 1 because younger students still required parental consent, and response rates from families remained limited even when schools were supportive and sent reminders. Greece reported a similar issue at the start, since the initial email route proved impractical for many families; paper forms distributed through students worked better in practice. Cyprus also depended on teacher-led paper distribution and collection, but return remained slow.

The Basque Country illustrates a slightly different situation. There, consent was collected through a school-mediated paper process, but once forms had been returned, the next steps could move forward in a more structured way because the research team was able to schedule baseline directly with the school. This seems to have reduced the distance between consent completion and classroom baseline activity, which is especially important in a study where recruitment and implementation are closely linked. Slovenia also points in this direction, although through a more researcher-led route: when students could complete consent procedures and registration directly during classroom sessions, progress was more reliable than when the process depended on follow-up outside the lesson.

Switzerland again differs from the other sites. In most cases, students in the relevant age group could consent independently, so parental consent did not create the same bottleneck as elsewhere. This made the early stages of recruitment lighter and helped reduce the administrative burden on schools.

In addition, engagement with families emerged as an important factor influencing consent completion. Clear communication through school-mediated channels, particularly in younger age groups, helped address concerns related to data protection, the use of digital tools, and the purpose of the intervention. Building trust between families and the research team was therefore a key element in facilitating participation.

Overall, the consent experience in Study 2 indicates that the key determinant was not the format (paper or digital), but the extent to which consent procedures could be embedded within routine

school communication and completed with minimal burden for families. Where this integration was achieved and closely aligned with classroom scheduling, recruitment progressed more efficiently. Conversely, where consent required multiple steps, repeated follow-up, or additional effort from families, delays were more likely to occur.

7. Ethics and institutional approvals

Study 2 was implemented within an approved ethical framework across all pilot sites. Ethics approval had been obtained prior to the start of recruitment activities, and all participating teams operated in accordance with relevant national regulations, institutional requirements, and European standards for research involving minors, including data protection (GDPR) and Good Clinical Practice principles.

At the same time, the midterm experience indicates that ethics approval alone was not the decisive threshold for implementation readiness in Study 2. Given the classroom-based nature of the study, the involvement of teachers, and the longer baseline procedure compared to Study 1, the practical start of recruitment depended not only on ethical clearance, but also on additional layers of educational and organisational approval.

A first pattern observed across sites is that recruitment timelines were influenced by the sequencing of ethical and educational authorisations. In Italy, the National Ethics Committee approval process took longer than anticipated, and by the time authorisation was obtained, many schools had already finalised their academic planning for the year. This reduced the available timeframe for recruitment and delayed implementation.

A second pattern relates to settings where ethics approval formed part of a broader administrative pathway. In Cyprus, in addition to ethical clearance, approval from the Pedagogical Institute was required, and schools also needed to proceed through the relevant inspector route before implementation could begin. These additional steps extended the time needed to translate approval into actual classroom access.

Overall, the evidence from Study 2 suggests that formal ethical approval was a necessary foundation, but not sufficient on its own to ensure implementation readiness. What ultimately determined the start of recruitment was the extent to which ethical clearance could be translated into timely access to schools, effective teacher coordination, and sufficient classroom capacity to complete baseline procedures and prepare delivery.

These findings highlight that, in school-based research involving minors, ethical approval should be understood as part of a broader implementation process. Ensuring alignment between ethical requirements, educational systems, and school-level organisation is essential to enable timely and feasible study delivery in real-world conditions.

8. Barriers and challenges

The barriers observed in Study 2 are closely linked to the fact that recruitment and implementation begin almost simultaneously. Once a school expresses interest, the subsequent steps already require teacher time, classroom space, consent collection, baseline completion, and preparation for delivery. As a result, the main obstacles reported across sites are not limited to initial school access but relate to whether the study can be effectively integrated into routine teaching practice without creating disruption. This highlights that barriers in Study 2 are primarily implementation-related rather than purely recruitment-related.

A first key barrier concerns the central role of teachers. Participation depended not only on school agreement, but on whether educators were willing and able to allocate lesson time, support classroom organisation, and remain engaged throughout the early implementation stages. In Belgium, recruitment depended heavily on teacher commitment and sustained follow-up with schools and classes. In Valencia and Cyprus, implementation was similarly shaped by the extent to which teachers could coordinate parental communication, classroom scheduling, and the integration of study activities within already constrained timetables.

A second barrier relates to the time demands of Study 2. Several sites reported that the study was more difficult to schedule than Study 1 because the baseline required more classroom time and the questionnaire was perceived as longer and more demanding. Switzerland illustrates this clearly: Study 2 typically required two lessons rather than one, reducing feasibility and increasing the likelihood that schools prioritised participation in Study 1 when time was limited. Romania reported a similar effect, noting that the greater burden reduced school willingness to participate under tight scheduling conditions.

A third barrier is linked to the younger age profile of many Study 2 participants. Several sites reported that younger students required more explanation, more structured support during onboarding, and additional time to complete the baseline assessment. Valencia and Cyprus both highlight that registration and questionnaire completion were more demanding among younger students, particularly in primary-level settings, increasing the complexity of classroom delivery.

A fourth set of barriers relates to technical and organisational frictions. Although less central than the above in nature, these factors became more visible in contexts where classroom time was already limited. Reported issues included connectivity problems, password recovery, platform usability, and the effort required to prepare and manage digital tools within one or two lessons.

A fifth barrier concerns competing priorities within schools. Several sites indicate that Study 2 had to be balanced against other ongoing activities and institutional demands. This is reflected in delayed decisions in Belgium, competing priorities in Romania, timetable pressure in Cyprus, and the need in Valencia to expand recruitment through additional schools.

In response to these challenges, considerable effort has been devoted to the development of supporting materials to facilitate implementation in schools. A wide range of resources has been produced to support teachers in planning, onboarding, and classroom delivery, including programme guides, lesson kits, visual materials, and structured activity content. These materials have been adapted to different educational levels (primary and secondary), translated into multiple languages, and designed to accommodate diverse school contexts, including variations in resources, organisational capacity, and student populations.

Examples of these implementation support materials are presented in Figure 5 and appendix A.

Figure 5. Implementation support materials developed to facilitate classroom delivery in Study 2.

The availability of these materials has helped reduce implementation burden, support teacher engagement, and improve feasibility across sites. In particular, they have been instrumental in supporting delivery in heterogeneous environments, including schools with fewer resources and those working with socially and culturally diverse populations. This reinforces the role of implementation support as a key enabling factor for recruitment and delivery in Study 2.

Overall, the barriers identified in Study 2 suggest that the main challenge was not securing initial interest from schools, but sustaining sufficient organisational capacity to move from agreement to classroom delivery. Sites that progressed more smoothly were those where teacher engagement remained strong, lesson time could be protected, and early study procedures were supported directly within the classroom. These findings reinforce the importance of aligning study requirements with school organisation, teaching practice, and implementation support as key conditions for successful delivery in real-world settings.

9. Deviations from the original plan

During the recruitment period, several pilot sites introduced targeted adaptations to the operational delivery of Study 2 within schools. These adaptations were implemented to improve feasibility, reduce procedural burden, and better align the recruitment pathway with local school practices and classroom constraints, while preserving the core design and methodological integrity of the study.

A first pattern of adaptations concerned the early recruitment steps, particularly consent procedures and initial school engagement. In Belgium, the site moved away from relying solely on the original Authoring Tool pathway and instead combined paper-based consent, Smartschool-supported communication, and teacher guidance materials to facilitate participation. Greece similarly simplified the process by replacing email-based consent return with paper forms and by removing parental involvement in the registration step. In both cases, the aim was not to modify the study pathway, but to reduce complexity and ensure that early administrative steps could be completed without delaying classroom implementation.

A second pattern of adaptations related to recruitment coverage and school-level organisation. Greece incorporated additional classes (Tylissos) to complete recruitment, Slovenia introduced a replacement school, and Valencia continued recruitment through an additional site. Belgium also implemented a second outreach round to recover recruitment capacity. These adjustments were aimed at maintaining recruitment momentum under variable school conditions.

A third pattern concerned the organisation of baseline completion and classroom delivery. Romania provides the clearest example, adopting flexible formats such as working with multiple classes simultaneously and adapting communication and planning to each school context. Cyprus introduced suggested programme packages to support teachers while maintaining flexibility in tool selection. In the Basque Country, Belgium, and Valencia, the research team progressively assumed a more direct role in classroom-based implementation, particularly where additional support was needed to sustain progression from consent to baseline completion.

A fourth pattern relates to sites requiring few adaptations . Switzerland stands out in this respect, reporting almost no procedural changes beyond the need for an extended recruitment period, reflecting the suitability of its decentralised, practice-based model for classroom implementation.

Overall, these adaptations are best understood as context-driven implementation refinements rather than deviations affecting the study design. The target population, overall recruitment pathway, intervention delivery, and evaluation framework remained unchanged across all sites. What changed was the way in which these elements were operationalised to ensure feasibility within diverse educational settings.

While these adaptations may introduce some variability in implementation processes across sites, they do not compromise the internal consistency or scientific objectives of Study 2. On the contrary, they reflect the pragmatic nature of the study and provide valuable insights into how classroom-based interventions can be effectively integrated into routine teaching practice. These aspects will be explicitly considered in the interpretation of results and in subsequent evaluation activities (WP5).

10. Extended recruitment window

According to the SUNRISE Description of the Action, recruitment for Study 2 was planned between months M18 and M32. However, the operational start of recruitment coincided with the end of the 2024–2025 academic year (June 2025), when most schools had already finalised their teaching schedules and were no longer able to incorporate additional activities. As a result, effective recruitment could only begin at the start of the following academic year (September 2025), leading to an operational initiation delayed beyond plan across several sites.

In addition, the planned end of the recruitment period (M32, August 2026) coincides with the summer break in most participating countries, when schools are closed and recruitment activities cannot be conducted. This creates a structural constraint that limits the ability to complete recruitment within the originally defined timeframe, particularly in sites where Study 2 requires additional classroom planning and coordination.

An additional factor contributing to the adjusted recruitment timeline is the ethical and regulatory requirements for working with minors and implementing classroom-based digital interventions. Several countries require detailed ethical and institutional approval processes addressing data protection, informed consent procedures, and the use of digital tools in educational settings. These processes were conducted in full compliance with GDPR, national regulations, and Good Clinical Practice principles, ensuring robust protection of participants and high ethical standards. While this introduced some delays in specific contexts, it reflects the necessary level of scrutiny when conducting research in school environments involving vulnerable populations.

In response to these constraints and based on ongoing monitoring of recruitment progress across sites, the consortium agreed to extend the recruitment window until October 2026. This extension allows recruitment and early implementation to be aligned with the school calendar, including the start of the 2026–2027 academic year, where necessary.

Importantly, this adjustment does not reflect a change in the study design, target population, or evaluation framework. Rather, it ensures that Study 2 can achieve a sufficient sample size to support robust, interpretable results, particularly in a context where variability across classroom settings is expected.

In Study 2, the intervention programme typically requires approximately 4 to 6 months of classroom implementation. The extended recruitment window, therefore, provides sufficient time for newly recruited schools to complete both baseline and intervention phases within the following academic cycle. This creates a substantial opportunity to improve upon the current recruitment level (47.3%), which represents approximately midterm progress, and to consolidate implementation across sites.

In this context, the extended recruitment window is a critical enabling measure that is expected to support the completion of recruitment and facilitate reaching the planned sample size, thereby strengthening the robustness and interpretability of Study 2 outcomes.

From a project implementation perspective, the revised timeline remains fully compatible with the overall SUNRISE schedule (ending in April 2028). The intervention phase, follow-up assessments, and subsequent evaluation activities (WP5) can be completed without compromising study integrity or delivery of downstream tasks.

Furthermore, the extension does not introduce risks for the implementation of other work packages. The sequencing of activities remains coherent, and no dependencies are negatively affected. On the

contrary, the extended recruitment window strengthens the feasibility of the study by allowing sites to align implementation with real-world school conditions and by increasing the likelihood of reaching target sample sizes.

Overall, the extension should be understood as a pragmatic, context-driven adjustment that preserves methodological robustness, enhances feasibility in diverse educational settings, and improves the capacity of Study 2 to generate meaningful and generalisable evidence.

Figure 6. Extended recruitment window and its role in supporting Study 2 implementation.

11. Updated timeline

The current recruitment outlook for Study 2 remains manageable at the consortium level, but it is more spread out over time than in Study 1.

Table 3. Updated expected recruitment completion by pilot site

Pilot site	Expected completion	Current note
Greece	Early April 2026	Final registration expected after completion of Tylissos classes
Belgium	Late April 2026	Recruitment close to completion, but school scheduling remains tight
Slovenia	To be confirmed	Timing depends on whether an additional school can be brought in
Spain – Valencia	May 2026	Third school entering recruitment phase
Spain – Basque Country	Completed	Reported target exceeded; recruitment already consolidated
Italy	Early April 2026	Recruitment close to completion, although final enrolment is likely to remain below target
Romania	June 2026	Ongoing recruitment and additional baseline sessions planned
Cyprus	October 2026	Recruitment to resume after summer once the new school year begins
Switzerland	September 2026	Additional large school session already scheduled

Overall, the timeline shows that recruitment in Study 2 is expected to close over a wider period than in Study 1, ranging from early April to October 2026 depending on the site. This does not indicate a loss of control over implementation. Rather, it reflects the fact that Study 2 depends on classroom-level feasibility and therefore unfolds according to the practical opportunities each school system can offer during the academic year.

12. Lessons learned

A first key lesson is that recruitment in Study 2 was most effective when the programme was embedded as a supported classroom activity rather than treated as an additional external task. Across several sites, the transition from school agreement to completed baseline participation was more reliable when teachers were actively involved in planning lesson time, identifying participating classes, communicating with families, and coordinating early classroom steps together with the research team. In this respect, teacher engagement emerges as the primary enabling condition for implementation in Study 2.

A second lesson is that feasibility matters as much as interest. Several pilot sites indicate that schools may value the aims of the programme but still struggle to accommodate it if the baseline is long, the questionnaire is demanding, or the study requires substantial lesson time. Switzerland and Romania are particularly clear on this point: Study 2 was harder to integrate than Study 1 mainly because it required more classroom time, and in some cases, schools prioritised participation in the less demanding study when both could not be accommodated equally. This reinforces that feasibility in classroom-based studies is determined not only by interest in the programme, but also by the capacity of schools to integrate study requirements into routine teaching practice.

A third lesson concerns the value of direct, in-person support during onboarding and baseline completion. Valencia, Cyprus, Greece, and Romania all indicate that classroom visits, step-by-step guidance, and immediate troubleshooting helped students complete registration and questionnaires more reliably than indirect follow-up alone. This was especially important in younger classes, where students required more explanation and more time to progress through the baseline process.

A fourth lesson relates to the need for flexibility in implementation. The reports suggest that a single standardised delivery route is unlikely to work equally well across all schools. Romania highlights differences in communication flow, internal organisation, and support needs across schools, while Cyprus reports that teachers required flexibility to select tools that best matched their timetable and teaching priorities.

A fifth lesson concerns the role of implementation support materials. The availability of structured programme guides, lesson kits, visual resources, and digital content helped reduce the burden on teachers and facilitated classroom delivery. These materials were particularly important in schools with fewer resources or less prior experience with similar interventions, contributing to improved feasibility across diverse educational settings.

Finally, the relationship between Study 1 and Study 2 provides an important insight. Experience gained in Study 1 supported a more structured and proactive approach in Study 2, particularly in communication with schools, scheduling, and classroom support. At the same time, the comparison between the two studies highlights a key boundary condition: when the organisational and time burden on schools becomes too high, even well-designed and well-supported recruitment strategies face limitations. This underlines the importance of balancing scientific ambition with implementation feasibility in school-based research.

13. Implications for study validity and evaluation

The midterm recruitment and implementation experience in Study 2 highlights raises several considerations relevant to cross-site comparability, sample representativeness and the interpretation of study outcomes.

First, recruitment pathways and implementation conditions vary across sites, particularly in relation to teacher engagement, lesson time allocation, and the integration of study activities into routine classroom practice. These differences reflect real-world educational contexts and are inherent to the pragmatic design of Study 2, but they may influence participation patterns and should be considered when assessing cross-site comparability.

Second, the recruitment approach is based on school and class-level feasibility rather than on random selection. Participation depends on school agreement and the capacity of teachers to incorporate the programme into their schedules. As a result, the study sample may reflect a degree of selection towards schools and classrooms with higher organisational capacity or motivation, which may have implications for representativeness.

Third, variability in classroom implementation, including differences in teacher involvement, baseline administration, and use of supporting materials, may influence both baseline completion and early engagement with the intervention. In particular, the younger age profile of participants in some settings introduces additional variability in the level of support required during onboarding and data collection.

Importantly, these factors do not compromise the feasibility or integrity of Study 2, but rather reflect the conditions under which classroom-based interventions are implemented in real-world settings. In line with the implementation science framework underpinning the project, these contextual and operational differences will be explicitly considered in WP5 analyses, including subgroup analyses and evaluation of implementation processes.

Overall, the findings reinforce that recruitment and implementation are closely interconnected in Study 2, and that interpretation of outcomes should account for the influence of school-level organisation, teacher engagement, and contextual delivery conditions.

14. Conclusions

At midterm, Study 2 has reached a substantial level of recruitment across the consortium. Although progress varies across sites, the overall picture confirms that implementation is advancing under diverse educational conditions. The strongest results to date are observed in the Basque Country, which has exceeded its reported target, while Greece and Belgium have also achieved high baseline numbers. Other sites remain at earlier stages but continue to progress through ongoing school engagement, classroom planning, and additional recruitment efforts.

The cross-site experience clearly shows that recruitment in Study 2 depends less on school agreement in principle than on the practical feasibility of integrating the programme into routine teaching. Teacher involvement, availability of lesson time, family consent processes, and the organisational effort required to complete baseline assessment have all shaped recruitment outcomes. In this sense, the main challenge has not been initial access to schools, but securing sufficient classroom capacity to move from interest to delivery.

A second key conclusion is that the study framework has proved adaptable without compromising consistency. Sites introduced context-specific adjustments to consent procedures, school outreach, classroom support, and baseline delivery in order to maintain feasibility. These adaptations did not alter the core design or objectives of Study 2, but enabled the common implementation pathway to be translated into workable formats across different educational contexts.

The extension of the recruitment window until October 2026 should be interpreted within this implementation context. It represents a proportionate and necessary adjustment to align recruitment with the school calendar and classroom constraints, rather than a deviation from the study design. This extension provides a critical opportunity to improve upon the current midterm recruitment level and to support completion of the study under realistic conditions.

Importantly, the extended timeline allows newly recruited schools to plan implementation from the beginning of the academic year, integrating the programme more effectively into their teaching schedules. This is expected to facilitate recruitment progression and increase the likelihood of reaching the planned sample size.

Overall, Study 2 demonstrates that classroom-based interventions targeting adolescents are feasible across heterogeneous educational systems, but successful delivery is shaped by local implementation conditions. The findings highlight that reaching the planned sample requires alignment between study procedures, teacher engagement, and school organisation, supported by adequate implementation resources.

The cross-site experience also carries broader relevance. In contexts where scalable, school-based public health interventions depend on integration into routine educational practice, Study 2 provides evidence not only on recruitment feasibility, but on the organisational and contextual conditions that make sustainable implementation possible.

15. References

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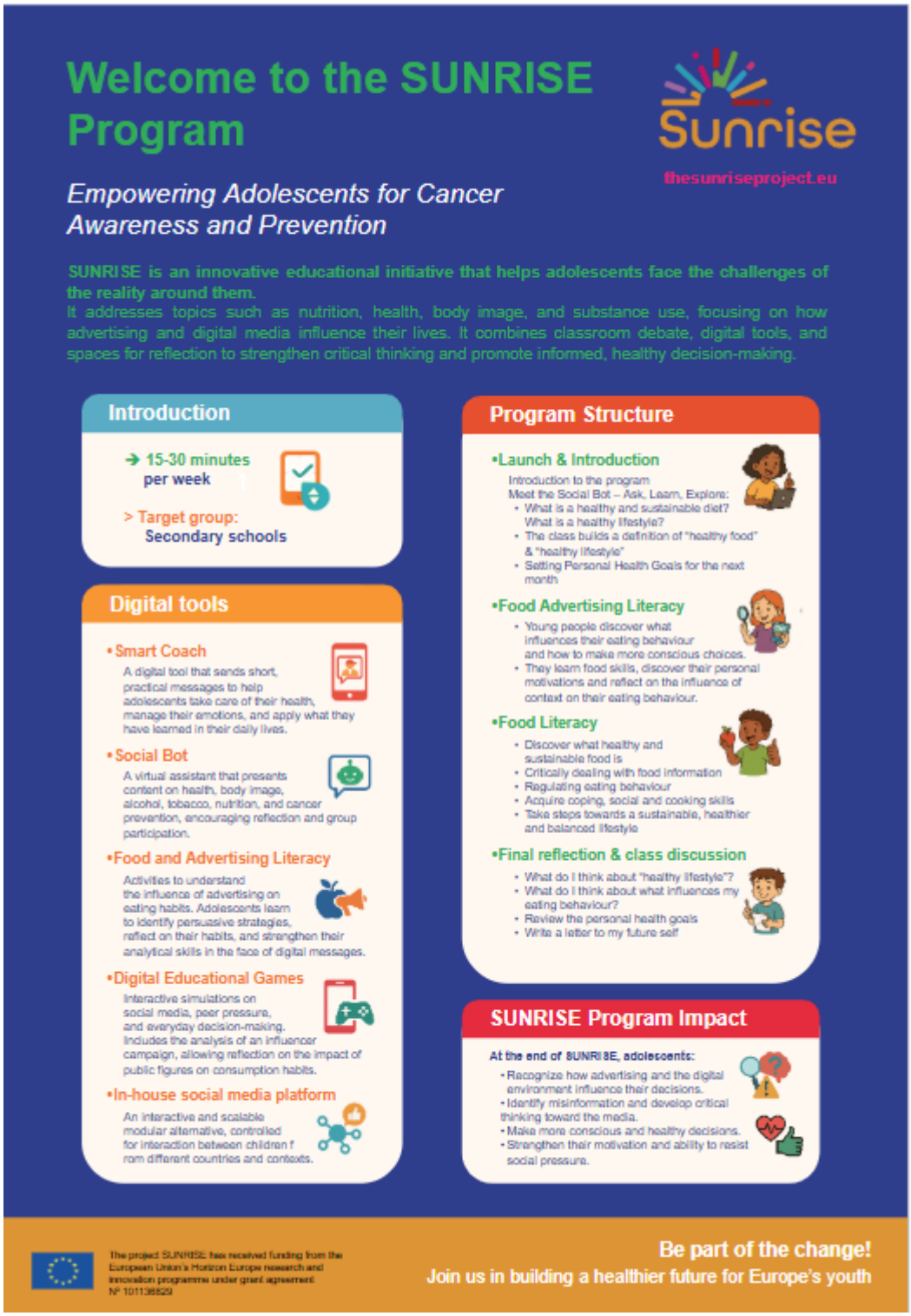
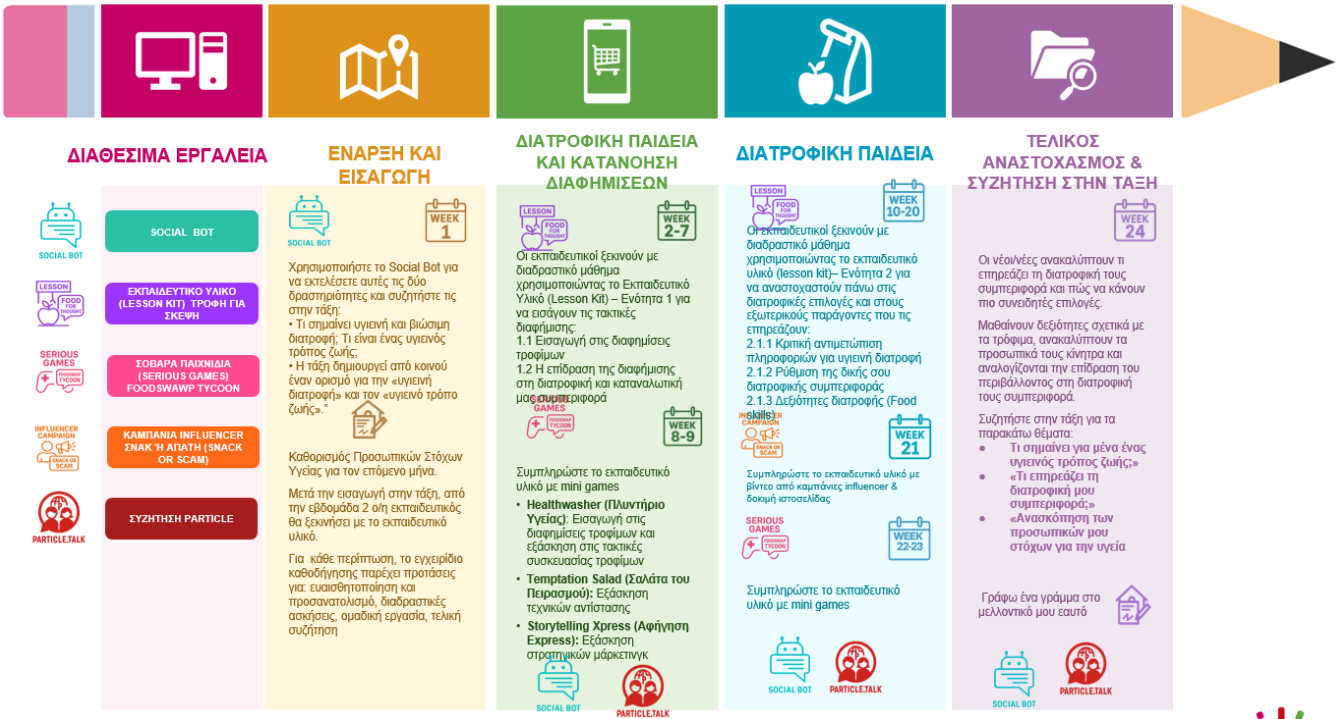
Appendix A

A1. Sunrise Program Flyer



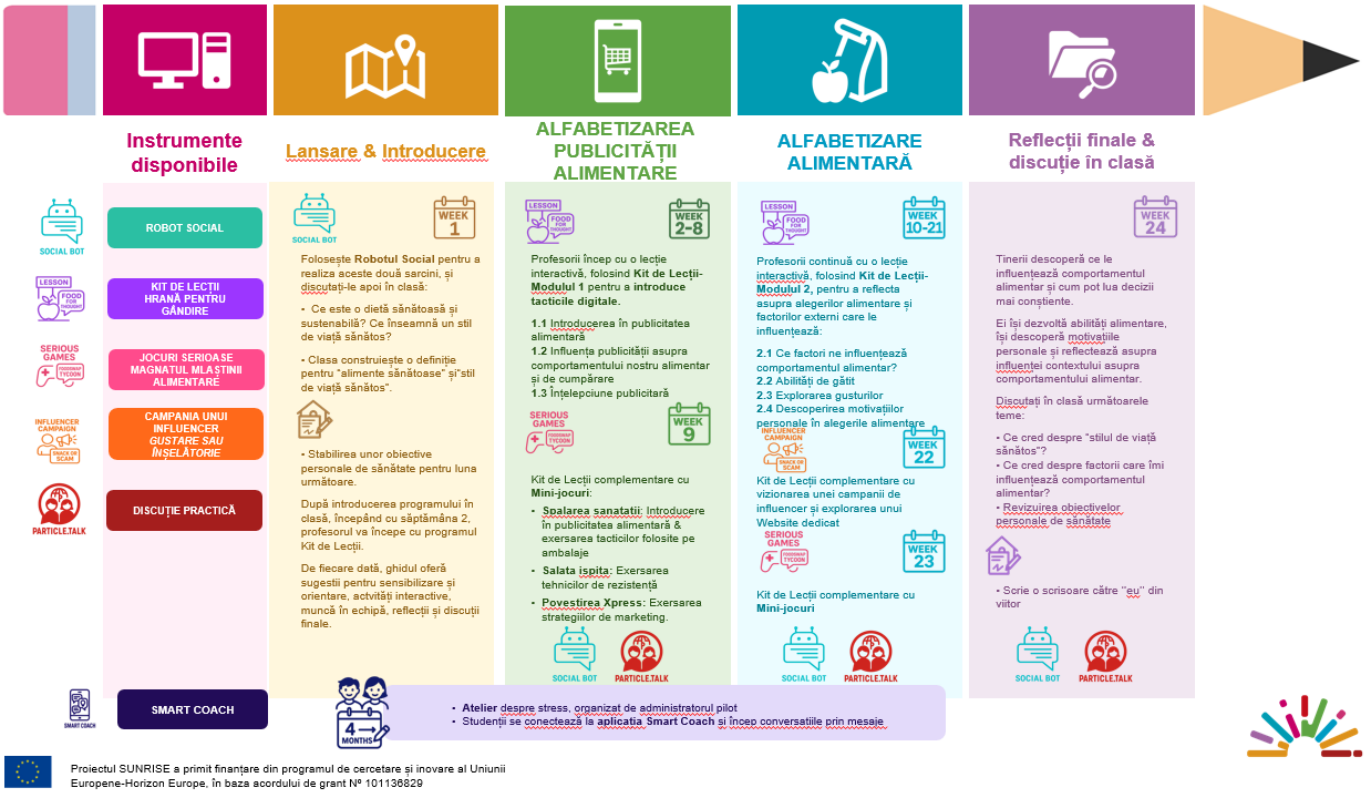
A2. Sunrise Program Poster

A3. Sunrise Short Program Schedule in greek



Το έργο SUNRISE έλαβε χρηματοδότηση από το πρόγραμμα έρευνας και καινοτομίας Horizon Europe της Ευρωπαϊκής Ένωσης, σύμφωνα με τη συμφωνία επιχορήγησης αριθ. 10113682

A4. Sunrise Large Program Schedule in Romanian



Proiectul SUNRISE a primit finanțare din programul de cercetare și inovare al Uniunii Europene-Horizon Europe, în baza acordului de grant Nº 101136829

A5. Sunrise Program

INTRODUCTION

Time needed - 15 to 30 min per week

Target group- Secondary students

The program is aimed at students aged 10 to 18. The current version of the program is more suitable for the older target (+12), discussing topics such as tobacco and substance abuse, using social media formats, etc. For younger students (10-12-year-olds), the sessions will require significant adaptations: simpler language, shorter tasks and stronger visual support.

Program Impact

By the end of 6 months, students will:

- Recognize and explain how food and substance-related advertising can influence their attitudes, beliefs, and behaviors.
- Identify misinformation in media and apply critical thinking skills to evaluate health-related messages.
- Demonstrate the ability to make conscious, informed, and sustainable health choices related to nutrition and substance use.
- Exhibit increased internal motivation and use social resistance strategies to make independent, health-promoting decisions.

- Thanks to these newly acquired skills and knowledge, children will be better equipped to make healthy decisions in their daily lives, helping us fulfill SUNRISE's overarching goal: to **prevent cancer** from an early age through education and critical awareness.

- **The Sunrise program is designed to be implemented per class**; this process requires the registration of the teacher and the students through the Authoring tool and will be supported by the SUNRISE team. At the end of this process, **students will be given accounts to enter the SUNRISE app.**

- Since this is a scientific study, some classes will be assigned to control group. **The registered students from control classes will only be required to answer 3 questionnaires** in the SUNRISE app (baseline, follow-up after 6 months and final after 18 months).

- **The classes assigned to intervention will use 1 or more digital modules chosen by the educator. In the next pages, we outline a general example.**

REGISTRATION AND LAUNCH

Before starting the program all the educators, parents and students should complete this flow-chart.

STEP 1: REGISTRATION

The pilot admin creates schools and QRs for educators' registration

Educator creates a new class (level, age, contents...) and the QRs for students' registration and gives them to children/parents

The child scans the QR code, is redirected to web-app, completes personal information in a form (email, name) and submit it

Parents/child receives an email with the consent form, signs it

Finally, students receive users to enter the SUNRISE App

The pilot admin checks new classes created everyday and assign them to study 1 or 2 + control or intervention

STEP 2: BASELINE ASSESSMENT

The class shows as "assigned" and the educator can see how many consents are completed. During class, they activate the baseline survey

Students complete the baseline survey via the Sunrise app by login in with their users

Educator reveals the assignment in the authoring tool (they can see and wait for baselines to be completed, and students will only see it when they finish via the sunrise app)

The class receive instructions depending on what study and group they are

3

We will now go through a recommended 6-month intervention program, explaining the different tools that can be used. You can check the full list of tools in the last page and, keep in mind, that this is an example using some of them. You can adapt your final list of active digital tools, the duration of the sessions, the contents and the combination of other traditional methods in class, based on your preferences as the teacher.

4

ONGOING TOOLS

The SUNRISE App provides access to all digital tools assigned by the educator to the child/student. Before starting the program, a **baseline questionnaire on lifestyle habits** will be conducted.

It works as the main entry point to the SUNRISE tools: the student opens the SUNRISE App(*) via a standard browser with Internet access, enters the credentials (username and password) and is presented with the main page that displays all selected SUNRISE tools.

Social Bot

The goal of the SUNRISE Social Bot is to **enhance cancer prevention awareness** in adolescence.

- What? Use an interactive social bot for health knowledge provision
- Why? Use the social bot platform as a method to assess and improve the knowledge of adolescents on healthy behaviours towards cancer prevention
- How? Understand adolescents' needs and preferences when they interact with an interactive social bot for healthcare

The Social Bot can be introduced early (in **week 1**) and used regularly throughout the program. It is a **friendly, 24/7 chatbot** that students can interact with on any internet-connected device. They are encouraged to engage with it, exploring themes like:

- Healthy lifestyle choices
- Myths about food and cancer prevention
- Tobacco and alcohol risks
- Body image and media manipulation

Teachers can assign "Bot Challenges" to reinforce classroom topics, turning the bot into an extension of the lesson.

Unlike a one-time lesson, the Social Bot provides **personalized, low-pressure engagement** that students control, at their own pace.

PARTICLE. TALK

Is a social media platform, thus ensuring that **all content is moderated** and **thus safe**. This platform accompanies the duration of the SUNRISE studies, allowing all participants to express their points of view, concerns, issues and expectations concerning cancer prevention, healthy behaviours and dealing with the psycho-social pressures of change.

Lesson Kit – Food for Thought

The Lesson Kit is a manual for teachers that is complemented by a website for students and a reflection tool.

The Lesson Kit consists of 2 parts. Part 1 focuses on **advertising skills**, part 2 on **food skills**. It aims to make young people aware of how we are inundated with advertising on a daily basis. Moreover, they are easily tempted by their environment to buy and eat unhealthy food. Through various tasks, their advertising and food skills are reinforced.

The Lesson Kit contributes to 3 learning objectives: **awareness & understanding, skill** and **behavioural change**.

Serious Game

The serious game is set within a school environment transformed into **a hub for various food-related companies**. In this setting, adolescents step into the role of a 'food swamp tycoon,' gaining control over these companies. The objective is to maintain a high market share and a strong reputation, encouraging them to **adopt the perspective of a food marketer**.

Influencer campaign

The influencer campaign addresses **key topics related to misinformation and deception in food messages on social media**. The website offers guidance to adolescents on recognizing and critically evaluating nutrition-related misinformation on social media. It will feature videos created by influencers, who will also share this content on their own social media platforms.

SmartCoach

SmartCoach follows an interactive storytelling approach to promote self-management skills, social skills, and substance use resistance through tailored weekly coaching messages over a period of four months.

The tool is:

- **Motivational and bite-sized**
- Designed to **build life skills over time**
- Used **independently, at home**

SmartCoach supports the emotional and behavioural aspects of the program, reinforcing what students explore in class with regular, real-life advice.

PROGRAM PLANNING

Launch & Introduction

WEEK 1

Introduction to the program

Meet the Social Bot – Ask, Learn, Explore

- What is a healthy and sustainable diet? What is a healthy lifestyle?
- The class builds a definition of **"healthy food"** & **"healthy lifestyle"**
- Setting **Personal Health Goals** for the next month

This first session introduces students to the SUNRISE programme, its goals, and how they will engage with it over the coming weeks. The aim is to spark curiosity, set a positive tone, and encourage active participation.

1. Welcome & Context

- Briefly explain that **SUNRISE** is an educational programme designed to help young people make informed choices about their health, diet, and lifestyle, with a focus on both personal well-being and the planet's sustainability.
- Share how the programme will combine classroom activities, interactive tools, and a *Social Bot* to make learning fun and relevant.

2. Meet the Social Bot – Ask, Learn, Explore

- Present the Social Bot as a friendly, digital companion that can answer questions, give tips, and provide challenges.
- Invite students to ask the Bot questions such as:
  "What is a healthy and sustainable diet?"
  "What does a healthy lifestyle mean?"

3. Building Class Definitions

- In small groups or as a whole class, students brainstorm their ideas of:
  - **Healthy food** – e.g., balanced, nutritious, minimally processed, good for the environment.
  - **Healthy lifestyle** – e.g., active living, enough sleep, balanced screen time, positive relationships.
- Record their ideas on the board, combining suggestions into **two working class definitions**.

4. Setting Personal Health Goals (to be done at home)

- Ask each student to think about one aspect of their diet or lifestyle they would like to improve in the next month.
- Goals should be **SMART**: Specific, Measurable, Achievable, Relevant, Time-bound.
  Example: "I will eat at least two portions of fruit every day for the next four weeks."
- Students write their goals in their notebooks or on a goal card.

Closing: Remind students that this is just the beginning. Over the next sessions, they will explore practical skills, learn to analyse information critically, and discover how small changes can make a big difference to their health and the planet.

7

Advertising Literacy – Food Ads & Healthy Choices

WEEK 2–13

What is Advertising Literacy?

The ability to recognise, understand, and critically evaluate food advertising and its influence on our eating habits.

From weeks 2 to 13 of the program, teachers will use the **Lesson Kit – Module 1** to guide students in reflecting on different forms of advertising, their purposes, and the strategies advertisers employ to achieve those purposes.

Key Learning Goals

- Spot the difference between organic posts and paid ads on social media.
- Recognise emotions ads trigger (positive, negative, humorous).
- Understand how ads shape **brand awareness**, **attitudes**, and **purchasing decisions**.
- Identify **advertising formats** and **strategies**.
- Apply **resistance techniques** to unhealthy food advertising.

Why It Matters

- Food ads often **promote unhealthy options** and hide negative aspects.
- Children & teens are **highly susceptible** to marketing influence.
- Factors like family, friends, school environment, and product availability also shape choices.
- **Behaviour Wheel**:
  - **Capabilities** – skills & knowledge (e.g., nutrition know-how, cooking skills)
  - **Motivations** – desires, attitudes, confidence
  - **Opportunities** – environment, price, access, regulations

How We Learn-Activities include:

- Analysing social media food posts & voting on favourites.
- Comparing branded vs. store-brand ads.
- Spotting "sponsored" labels and hashtags (#ad, #sponsored).
- Group investigations on ad influence using surveys.
- "Pizza" game – match **formats**, **strategies**, and **objectives**.
- Recognising strategies like **product placement**, emotional appeal, humour, influencers.
- Resistance techniques:
  - **Avoidance** – skip/ignore ads
  - **Contradiction** – challenge unrealistic claims
  - **Reinforcement** – strengthen personal healthy choices

Takeaway Message

We're surrounded by food advertising every day – much of it unhealthy.
By developing **advertising literacy**, we can make **informed, conscious food choices** that support a healthier lifestyle.

8

Mini-games

WEEK 14

- **Healthwasher**: Learn how food companies use "healthwashing" to make products seem healthier
- **Temptation salad:** Learn how to respond to resistance against healthy options
- **Storytelling Xpresss:** Learn about modern advertising formats and how they persuade people

After completing Module 1, children will consolidate their knowledge by playing mini-games during week 14 of the program.

SUNRISE will use educational games to engage students, applying an entertainment-education approach.

- Teach ideas through rules, choices, and interaction instead of only text or images.
- Players learn by trying things out and seeing the results.
- They work well because they are interactive and give real experience.

Health Washer

Game plan: The player encounters food product marketing (food packaging) that conveys honest and transparent information about the products

3 steps:

- "Healthwashing" of honest and transparent claims on food packaging
- Rebranding of the product
- Confirm choices so the product can hit the shelves

Temptation Salad

Game plan: There's competition in the market from a new salad truck. As foodswamp tycoon, the player takes on this competitor by opening a salad bar in their fast-food establishment.

3 steps:

- Recognize and understand resistance strategies toward your new salad bar
- Try out a resistance-neutralizing persuasion tactic
- Evaluate this resistance-neutralizing tactic

Storytelling Xpress

Game plan: The player creates an advertising campaign for a specific food product, selecting the appropriate advertising format and persuasion techniques

3 steps:

- Choose name product and slogan
- Choose a suitable advertising format
- Select suitable persuasion techniques

9

Food Skills

WEEK 15-22

What are Food Skills?

Food skills are the knowledge, abilities, and strategies that help you choose, prepare, and enjoy healthy, eco-friendly meals. They combine:

- Capabilities – cooking, reading labels, understanding nutrition.
- Motivations – taste, values, health, convenience.
- Opportunities – environment, availability, cost, culture.

From weeks 15 to 22, after playing the mini-games, teachers will use the **Lesson Kit – Module 2** to guide students in reflecting on skills that can influence eating behaviour.

Key Learning Goals

- Recognise the **determinants** of eating behaviour (capabilities, motivations, opportunities).
- Evaluate food information and claims critically.
- Plan and prepare balanced meals and snacks.
- Understand how environment shapes food choices.
- Set and work towards **SMART** healthy-eating goals.

Why It Matters

- Transforms knowing what's healthy into doing it consistently.
- Builds independence in food preparation and decision-making.
- Helps resist misleading advertising and peer pressure.
- Encourages sustainable, affordable, and culturally relevant choices.

How We Learn-Activities include:

- Behaviour Wheel Bingo – exploring what shapes our food behaviour.
- If... Then... Plans – strategies for healthy eating in tricky situations.
- Healthy Swap Challenge – making recipes healthier.
- Food Environment Mapping – identifying supports and barriers around us.
- Motivation Mapping – interest, value, and utility drivers.

Takeaway Message

Food skills = Knowledge + Ability + Motivation + Supportive Environment
→ These elements together make healthy eating possible, enjoyable, and sustainable.

10

Minigame

WEEK 23

- **Healthwasher**: Learn how food companies use "healthwashing" to make products seem healthier
- **Temptation salad:** Learn how to respond to resistance against healthy options
- **Storytelling Xpresss:** Learn about modern advertising formats and how they persuade people

To complete the Lesson Kit learning, students will use the mini-games again.

Health Washer

Game plan: The player encounters food product marketing (food packaging) that conveys honest and transparent information about the products

3 steps:

- Healthwashing of honest and transparent claims on food packaging
- Rebranding of the product
- Confirm choices so the product can hit the shelves

Temptation Salad

Game plan: There's competition in the market from a new salad truck. As foodswamp tycoon, the player takes on this competitor by opening a salad bar in their fast-food establishment.

3 steps:

- Recognize and understand resistance strategies toward your new salad bar
- Try out a resistance-neutralizing persuasion tactic
- Evaluate this resistance-neutralizing tactic

Storytelling Xpress

Game plan: The player creates an advertising campaign for a specific food product, selecting the appropriate advertising format and persuasion techniques

3 steps:

- Choose name product and slogan
- Choose a suitable advertising format
- Select suitable persuasion techniques

11

Influencer Campaign

The topics covered are:

- How to recognise misleading health and nutrition claims?
- Algorithms and food bubbles: what are their advantages and disadvantages?
- Misleading advice or half-truths: how to
- recognise and puncture them?

Young people discover **what influences their eating behaviour** and how to make more conscious choices.

They learn food skills, discover their personal motivations and reflect on the **influence of context** on their eating behaviour.

The influencer campaign "**Snack or Scam**" offers interactive and content-rich added value to the curriculum: through videos and online assignments, adolescents get to work themselves to recognise and puncture "healthwashing", algorithmic bubbles and misleading information on social media.

During the week 22, students **will complete the lesson kit – Module 2** with the videos and online try-outs of the influencer campaign:

- Try-out assignments & videos on "healthwashing" and algorithms: learn to recognise and see through health and nutrition claims, and reduce the influence of algorithmic bubbles.
- Try-out assignments and videos on signals of misinformation: learn to critically evaluate nutrition and health advice.

IN A NUTSHELL

(In)visible influences on what I eat

Food & alforithms: recognising and puncturing food bubbles

I choose myself: why I eat the way I eat

12

Final reflection & class discussion

WEEK 24

- What do I think about "healthy lifestyle"?
- What do I think about what influences my eating behaviour?
- Review the personal health goals
- Write a letter to my future self

1. What do I think about "healthy lifestyle"?

- Reflect on what "healthy lifestyle" means to you now compared to the start of the program.
- Consider aspects such as balanced nutrition, regular physical activity, mental well-being, rest, and social connections.
- Share personal examples or changes in habits you've noticed.

2. What do I think about what influences my eating behaviour?

- Identify the main factors that shape your food choices (e.g., family, friends, culture, advertising, availability, emotions).
- Discuss how your awareness of these influences has changed and how you might respond differently in the future.

3. Review the personal health goals

- **Look back at the SMART goal(s) you set earlier in the program.**
- **Evaluate your progress**: What worked well? What challenges did you face?
- **Think about any adjustments or new goals you want to set for yourself.**

4. Write a letter to my future self (to be done at home)

- Write a **short letter to be "opened" in 6–12 months**.
- Include reminders about what you have learned, encouragement to stick to your healthy habits, and ideas for overcoming challenges.
- You can include specific promises, motivational quotes, or even draw a small visual reminder.

13

SOCIAL BOT

Interactive quizzes for learning and assessment

The Social Bot includes a built-in quiz creation system. As a teacher or health educator, you can design your own questions to check students' knowledge and behaviours. The quiz runs directly through the Social Bot, making it engaging and easy for adolescents to interact with.

- **Customised for your context**

  Adapt the quiz content to reflect your country's curriculum, your school's priorities, and the needs of your students. You can update or add questions at any point in the 6-month programme to address emerging topics or reinforce specific learning goals.

- **Starting point: predefined quiz topics**

  To help you get started, the Social Bot comes with an initial set of questions in these areas:
  - **Substance use**
  - **Diet and advertising literacy**
  - **Physical activity**

- **Ongoing adaptation**

  Use quiz results to track progress and identify topics that need more attention. Adjust the difficulty or focus of your questions over time to keep students challenged and motivated.

WHEN? During the Lesson Kit activities, students can engage with the Social Bot to build and strengthen their knowledge and attitudes. Its use is recommended in the following modules: 1.2, 1.3, 2.1, 2.2.3, 2.3, and 2.4.

14

PARTICLE.TALK

Particle.Talk is a modern, private, IP-based platform where you can exchange messages, make voice or video calls, and keep in touch with colleagues, experts, and students involved in the programme.

- **Multiple ways to connect**

  You can use chat, audio, or video to communicate, depending on the situation. The app shows presence status (who's online) and provides send/read receipts so you know when your messages are delivered and viewed.

- **Sharing resources and instructions**

  Send documents through the app—such as best practices, teaching materials, or instructions to follow in case of an incident—directly to your target group.

- **Alerts and notifications**

  Use the notification function to send important updates or alerts to individuals or groups quickly. This can be especially useful for time-sensitive information or programme reminders.

- **Integration in the programme**

  Consider setting up a dedicated Particle.Talk group for your school or class to share quick tips, answer questions, and keep everyone engaged between in-person sessions.

WHEN? Throughout the program, children from different schools and countries can share ideas, knowledge, attitudes, and reflections through comments, videos, and documents - particularly at the beginning and end of each module.

15

SMART COACH

Helping teens develop healthy coping, social, and resistance skills

What is SmartCoach?

A **digital messaging solution** that supports adolescents through tailored, interactive messages based on the **Social Cognitive Theory**: Outcome expectations, Self-efficacy, Observational learning, Facilitation and Self-regulation.

How it Works

- **Step 1**: Students complete an **online baseline assessment** on stress & coping.
- **Step 2**: Receive **personalised web-based feedback** instantly.
- **Step 3**: Get **2–4 automated messages/week** with practical skills training.

Weekly Focus Areas

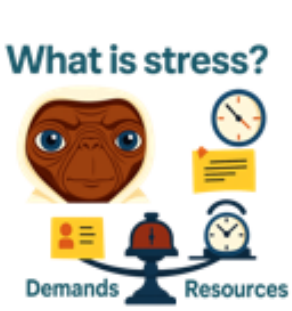
- **Weeks 1–7: Self-management skills –** coping with stress, emotional self-regulation, managing anger/frustration.
- **Weeks 8–17: Social skills –** making requests, saying no, meeting new people.
- **Weeks 18–22: Substance use resistance –** resisting media influences, correcting misconceptions, linking self & social skills to substance refusal.

Interactive & Fun

- **Periodic quiz questions** to adapt plans and messages.
- **Friendly competition –** earn credits for interactions, win prizes.

Safe & Secure

- Powered by **MobileCoach open-source software**.
- **Password protected & SSL encryption** for safe data transfer.



WHEN?

- Depending on the students' age and the school's capabilities, the Smart Coach program can be implemented in parallel with the Lesson Kit.
- Lasting 4 months, it can be scheduled flexibly within the 6-month overall program to best suit the school's needs..

16

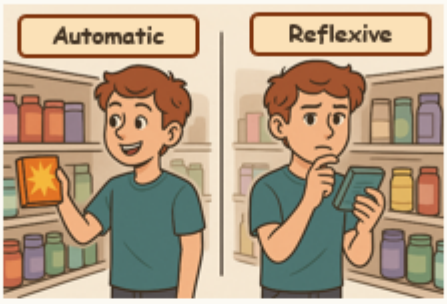
A6. Sunrise Materials: Poster in Spanish

A7. Sunrise Materials: Poster in Basque

A8. Examples of Sunrise materials: Task sheets 1

My motivations and healthy objective

Name _____



Automatic	Reflexive

My SMART healthy goal

S - Specific **M** - Measurable **A** - Attainable **R** - Realistic **T** - Time based

A9. Examples of Sunrise materials: Task sheets 2

MAKE IT HEALTHIER!

SPAGHETTI MUSHROOMS CREAM SAUCE (VEGETARIAN)

INGREDIENTS FOR 4 PEOPLE

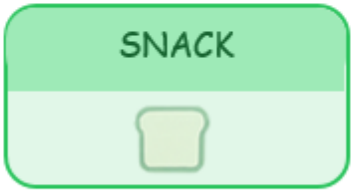
- 300 g spaghetti
- 2 onions
- 4 cloves of garlic
- 250 g chestnut mushrooms
- 2 tbsp flour
- 1 cube mushroom bouillon (Maggi)
- 200 ml full-fat cream
- 200 ml water
- 2 tbsp parsley (fresh – finely chopped)
- (olive)oil, salt and pepper

PREPARATION

1. Cook the spaghetti according to the instructions on the packet.
2. Chop the onion and finely chop the garlic.
3. Brush the mushrooms clean and slice them.
4. Heat a little oil in a large frying pan. Fry the onion and garlic until they begin to turn translucent, then add the mushrooms.
5. Fry the mushrooms until cooked, then add 2 tablespoons of flour.
6. Crumble the mushroom stock cube over the mixture, then pour in the liquid (the cream and water).
7. Bring to the boil and reduce the sauce slightly. You can add a little cooking liquid from the spaghetti to keep the sauce a little more liquid.
8. Stir the spaghetti into the sauce, add salt and pepper to taste, garnish with fresh parsley and serve immediately. Bon appétit!!

A10. Examples of Sunrise materials: Task sheets 3

7:00 What would you eat in the morning?



What would you take as a mid-morning snack to school?

What would you put on the main course?

Vegetables or salad:

Proteins:

Side dish (bread, rice, pasta,…)

Dessert or fruit:

What would you have in the mid-afternoon?

2000 How would you end the day in a healthy way?

A11. Examples of Sunrise materials: Fact sheets

Native advertising	Advertisements designed to look like regular content on a platform. They adapt to the style and format of the environment, making them less intrusive. 
Banners	Graphic advertisements displayed on websites. You can click on them, and they will take you to the advertiser's website. They are often very eye-catching and visually appealing to attract attention. 
Preroll ads/ YouTube-reclame	Short advertisements that play before a video on platforms such as YouTube. They are usually 5 to 30 seconds long and must quickly capture the viewer's attention.