



Design and Evaluation of a RIASEC-Based Mobile Career Guidance App

¹Styliani Kavoura, ¹Fotis Lazarinis*

Affiliations:

¹ Hellenic Open University, Greece

*Correspondence: fotis.lazarinis@ac.eap.gr

ABSTRACT

Digital career-guidance tools can broaden access to self-exploration and educational information, but their recommendations require careful design and appropriate professional support. This paper presents the design, implementation, and formative evaluation of Career Guidance, a mobile application for students attending Greek General and Vocational Lyceums. The application uses a 65-activity checklist based on Holland's RIASEC framework and maps students' responses to vocational-personality profiles, occupational categories, and relevant tertiary study programmes. The prototype was developed in Kotlin using Android Studio and Firebase services. It was evaluated by 27 students aged 17–18 and three experienced career-guidance professionals. Participants generally evaluated the application positively in terms of usability, visual design, usefulness, and ease of interaction, while perceived reliability received comparatively more cautious responses. The findings support the feasibility of the application as a complementary career-guidance resource. Further validation is required before it can be considered a stand-alone career assessment tool. The evaluation should be interpreted as a formative study involving a relatively small sample, providing initial evidence on usability and perceived usefulness rather than definitive evidence of effectiveness.

Keywords

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Introduction

Upper-secondary students are required to make educational choices while their vocational interests, self-concepts, and knowledge of occupational opportunities are still developing. Career interventions can help students connect self-knowledge with information about educational and occupational alternatives. Meta-analytic evidence indicates that structured career interventions can improve career-choice outcomes, particularly when they include individualized interpretation, values clarification, occupational information, and guided exercises [1].

Recent syntheses reinforce the need for theoretically grounded and evaluated interventions. Wang et al. [2] reviewed 25 studies involving high-school students and found that career construction theory, social cognitive career theory, and cognitive information processing theory were the most common foundations. Interventions generally used pre- and post-test designs and focused on career adaptability and career decision making. A separate review of distance career interventions identified only 16 eligible studies and noted that university students were overrepresented, demonstrating the need for more research with school populations and more rigorous evaluation designs [3].

Several recent studies illustrate the potential of digitally supported career development. Chen et al. [4] evaluated a synchronous online intervention with 957 Chinese high-school students and reported increased career readiness and reduced career decision-making difficulties. Wang and Liu [5] compared cognitive information processing and social cognitive career group counselling with 81 students and found benefits for students with initially low career adaptability, with the social cognitive intervention showing more persistent effects at follow-up. These studies indicate that digital or technology-supported career activities are most defensible when they are embedded in a structured intervention and assessed using validated career-development outcomes.

Direct evidence on mobile career counselling is also emerging. Masi et al. [6] examined the STUDIA mobile application with final-year secondary students and reported improvements in career decision-making self-efficacy, especially in self-assessment, goal selection, and planning. Their study also highlighted contextual differences in benefits across urban and rural participants. Although that pre-experimental design does not establish efficacy as strongly as a randomized trial, it shows how a mobile system can move beyond acceptability testing toward the measurement of a defined career-development outcome.

User preference studies nevertheless caution against treating online tools as substitutes for human support. In a survey of 361 higher-education students, Khurumova and Pinto [7] found

substantial openness to online and computer-assisted guidance, while in-person individual guidance remained a preferred modality. This combination of digital openness and continued preference for personal interaction supports blended models in which an application facilitates exploration and information access, while a counsellor helps students interpret uncertainty and consider alternatives.

Earlier mobile-learning work provides relevant design precedents. Lazarinis et al. [8] developed a mobile system that allowed students to regulate self-assessment by retrieving questions according to selected criteria. The application was evaluated in authentic testing settings, and active engagement was associated with improved student performance. In another study the researchers used storytelling in a mobile application to sensitize young children to internet addiction and online-safety risks [9]. The design combined concise visual narratives with prompts for reflection and was formatively evaluated with teachers and students. Together, these studies demonstrate that educational mobile applications can support self-directed activity, immediate feedback, and reflective learning, while also requiring iterative evaluation with intended users.

Mobile devices are relevant for school-age users because they support access across settings and allow short, self-directed interactions. Research on mobile learning identifies portability, immediate access, and opportunities for personalized engagement as recurring affordances, while stressing that educational value depends on the task design rather than on the device alone [10, 11, 12]. A career-guidance application therefore needs a coherent theoretical basis, transparent scoring, locally accurate educational information, and language that prevents users from interpreting exploratory feedback as a diagnosis.

This paper presents Career Guidance, an Android application created to support students in Greek General Lyceums (Geniko Lykeio; GEL) and Vocational Lyceums (Epangelmatiko Lykeio; EPAL). The present article restructures the design and evaluation as a journal manuscript, adds an extended participant cohort, and reanalyzes the complete original item-level ratings using descriptive and non-parametric inferential statistics. The application asks students to select activities that they enjoy or believe they can perform, estimates a dominant Holland RIASEC profile and occupational category, and recommends programmes from the Greek admission catalogue that correspond to their school pathway. The application is positioned as a locally contextualized exploratory support tool that complements existing career-guidance practices by connecting student self-exploration with Greek educational pathways.

The study addresses three questions: (RQ1) How can a theory-informed mobile system translate student-selected activities into a transparent sequence of vocational-profile feedback and locally relevant programme recommendations? (RQ2) How do student and professional

evaluators perceive the usability, interface design, usefulness, and reliability of the prototype? (RQ3) Do the original complete ratings differ significantly from the neutral scale midpoint, and are there differences in the ratings assigned to the ten evaluation dimensions? The contribution is primarily a design account and formative usability evaluation. It does not establish the psychometric validity of the 65-activity set, the accuracy of programme matching, or effects on career readiness and educational decisions.

Background and recent research

A. Digital and mobile career guidance

Career guidance combines self-understanding, information about options, and support for decision making. Effective interventions typically contain clarification of goals, individualized interpretation, occupational information, modelling, and structured exercises [1]. Digital systems can deliver some of these components at scale, but their role varies from stand-alone self-help to blended use alongside a counsellor. Online interventions with adolescents have improved career preparation, readiness, and decision-related outcomes when they included guided activities and appropriate comparison or longitudinal designs [4, 5, 13].

A mobile application is well suited to short exploratory tasks and retrieval of current educational information. Mobile systems have been used for self-assessment, reflective storytelling, and career decision support, demonstrating the value of concise interactions, persistent access, and immediate feedback [6, 8]. Their limitations are equally important: a small screen can encourage oversimplification, automated feedback may appear more authoritative than warranted, and unguided users may not understand uncertainty or alternative pathways. For this reason, the design reported here treats the application as an exploratory support tool. It offers a profile description and a filtered set of programmes, but it should not replace a qualified career professional or a broader counselling process.

B. Holland's RIASEC framework

Holland's theory organizes vocational personalities and work environments into six broad categories: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. The framework is commonly represented as a hexagon in which adjacent categories are conceptually more similar than opposite categories [14, 15]. RIASEC remains influential because it provides an interpretable language for connecting interests with educational and occupational environments.

Vocational interests are related to important educational and work outcomes, although interest measures are not sufficient by themselves for high-stakes recommendations [16]. Longitudinal evidence also suggests that adolescent interests can predict aspects of early career success, supporting the relevance of age-appropriate exploration during secondary education

[17]. At the same time, Holland emphasized that people rarely represent a single “pure” type. A rigorous assessment therefore normally reports a profile or code rather than only one category and relies on instruments with documented reliability and validity.

Career Guidance adopts the six-category vocabulary but uses a custom activity checklist and a dominant-category scoring rule. Consequently, its output should be described as RIASEC-based exploratory feedback rather than a validated RIASEC assessment. This distinction is central to the interpretation of the formative results. Throughout this manuscript, the term RIASEC-based exploratory feedback is used consistently to describe the application's output.

System design and development

A. Design objectives and user journey

The development objectives were to provide a simple interface for secondary students, make the available actions visible, give contextual instructions and error messages, preserve results for later access, and allow programme records to be updated without rebuilding the mobile application. The principal user journey consists of account creation, school-pathway selection, completion of an activity checklist, presentation of a vocational-personality description, and retrieval of recommended programmes.

At registration, the user supplies a name, email address, password, and school type (GEL or EPAL). After authentication, the user can start the questionnaire, review previously stored results, access instructions, reset a password, log out, or permanently delete the account. The questionnaire presents 65 activities. The student selects at least seven activities that they would enjoy, not necessarily as a career, or believe they are able to perform now or in the future. Selections can be revised before submission.

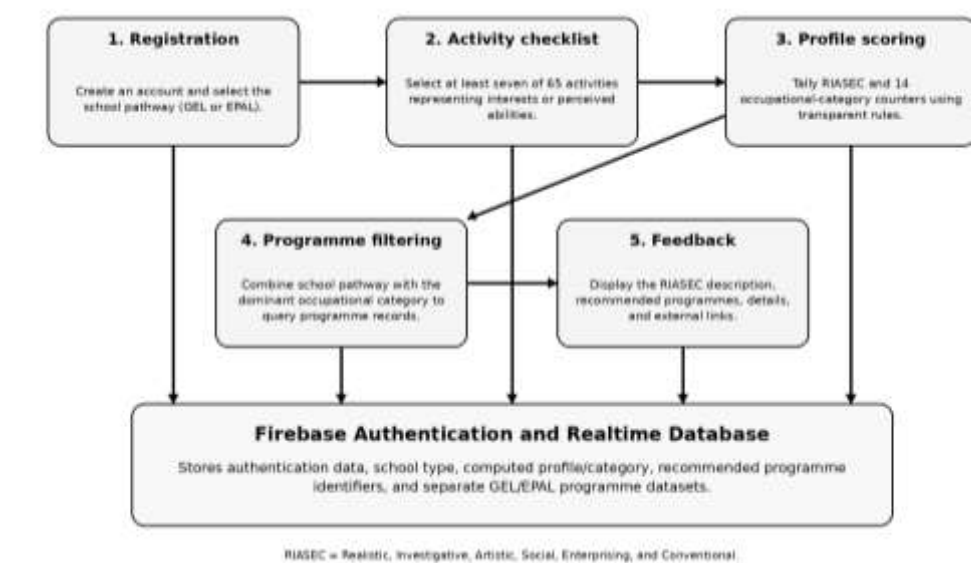


Fig. 1. End-to-end workflow of the Career Guidance application.

Table 1. Core design elements of the prototype

Element	Implementation
Target users	Students in Greek General Lyceums (GEL) and Vocational Lyceums (EPAL).
Input	School pathway and selections from a 65-activity checklist; students must select at least seven activities before submitting the questionnaire.
Conceptual model	Holland RIASEC categories plus 14 locally defined occupational categories.
Scoring	Each selected activity increments one or more RIASEC and occupational-category counters; the highest total is retained.
Recommendation rule	Filter programme records by school pathway and the dominant occupational category.
Outputs	Dominant profile description, stored results, recommended programmes, programme details, and external website links.
Technical platform	Android Studio 4.1.2, Kotlin, Firebase Authentication, and Firebase Realtime Database.
Interface	Ten user-facing screens covering access, account management, questionnaire completion, feedback, programme retrieval, and instructions.
User-data functions	Registration, email verification, login, password reset, stored results, logout, and permanent account deletion.

B. Scoring and recommendation logic

Each of the 65 activities was manually associated with one or more RIASEC categories and one or more of 14 occupational categories. The occupational categories covered agriculture and natural resources; construction and engineering; chemistry, energy, pharmaceuticals, and food; information technology and telecommunications; economics, banking, and management; commerce and public relations; legal occupations; transport and shipping; tourism; sport; media and communication; fine and applied arts; health and welfare; and education and theoretical sciences.

When the questionnaire is submitted, the application increments counters associated with every selected activity. It then identifies the RIASEC category and occupational category with the highest totals. The user is shown a narrative description of the dominant RIASEC category. Programme records are retrieved from the GEL or EPAL branch of the database according to the school type recorded during registration and the dominant occupational category. The student may open a programme website for further information. If two or more categories receive equal highest scores, the current prototype does not apply an additional tie-breaking mechanism; such cases are considered part of the limitations of the exploratory scoring approach.

This rule-based approach has two advantages for a formative prototype: its operation is transparent and the mapping can be audited without a trained machine-learning model. It also has substantive limitations. Ties, mixed profiles, differential item informativeness, and uncertainty are not modelled; all selected activities contribute equally; and the validity of the activity-to-category mapping was not established empirically. These issues are treated as priorities for future work rather than concealed as algorithmic precision.

C. Technical architecture, data model, and interface

1. Platform and account lifecycle

The prototype was developed in Kotlin with Android Studio 4.1.2 and targeted devices above Android API level 16. The implementation comprised 12 Android activities/classes and 10 user-facing screens: welcome, registration, login, password reset, main menu, instructions, questionnaire, personality-profile feedback, recommended programmes, and account deletion. Firebase Authentication supported account creation, email verification, login, password reset, logout, and permanent account deletion. The original minimum Android version and development environment are now technically outdated; a deployable version would require migration to a current Android SDK, dependency updates, contemporary privacy controls, and renewed compatibility testing.

The welcome screen offers direct access to registration or login. During registration, students enter a name, email address, password, password confirmation, and school pathway. After authentication, the main menu displays basic account information and email-verification status, and provides access to the questionnaire, stored results, instructions, logout, and deletion functions. Keeping these functions visible was a deliberate response to the young target group and reduced the number of hidden navigation layers.

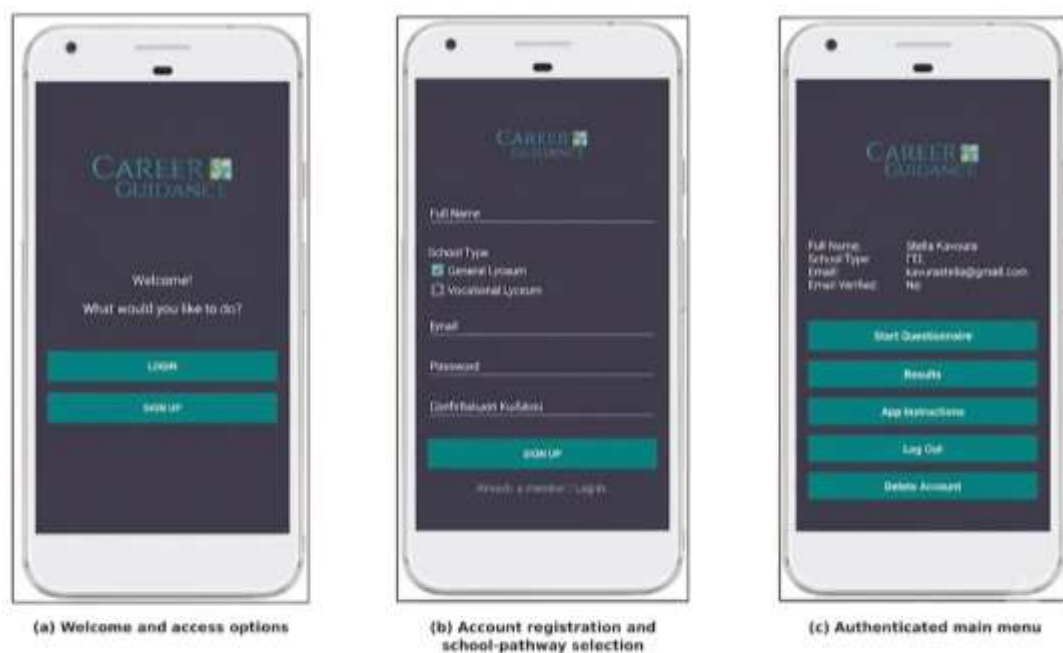


Fig. 2. Account and navigation screens in the original Greek-language prototype: (a) welcome screen, (b) registration with GEL/EPAL selection, and (c) authenticated main menu.

2. Questionnaire, scoring feedback, and programme presentation

The questionnaire is implemented as a vertically scrollable checklist of 65 activities. Students select activities they enjoy or believe they can perform now or in the future and may revise selections before submission. The interface validates the minimum number of choices and displays an error message when the threshold is not met. On submission, the selected activities increment the linked RIASEC and occupational-category counters. The application then presents a narrative description of the dominant RIASEC category and offers a transition to the recommended-programme screen.

Programme recommendations are presented as a searchable or scrollable list containing programme identifiers, study-field information, programme titles, institutions, and external website links. The GEL/EPAL distinction is applied before retrieval so that students see programmes associated with the admission pathway declared at registration. Results are stored and can subsequently be reopened from the main menu without repeating the questionnaire. This sequence was intended to move from self-exploration to actionable information while preserving a simple interaction flow.



Fig. 3. Assessment and recommendation screens: (a) activity checklist, (b) dominant RIASEC-profile description, and (c) recommended programmes with institution and website information.

3. Firebase data organization and update mechanism

Firebase Realtime Database was organized around user and programme branches. Each user record stored the student's name, school pathway, computed personality category, dominant occupational category, and identifiers of recommended programmes. The programme catalogue was imported from separate JSON datasets for GEL and EPAL and organized beneath corresponding school-pathway branches. Programme records contained the information required for display and linking, including an identifier, field, title, institution, and website.

This architecture allowed programme records to be added, corrected, or removed centrally. In contrast to a catalogue embedded in the installed application, backend changes could be reflected without distributing a new application package. The same design also introduced operational dependencies: the application required internet connectivity for authentication, verification, database reads, and result storage; data quality depended on the maintenance of the remote catalogue; and access control depended on correctly configured Firebase security rules.



Fig. 4. Firebase structures used by the prototype: authenticated-user records, user-result branches, and GEL/EPAL programme records imported from JSON.

Formative evaluation method

A. Participants and procedure

The sample comprised 30 participants: three professionals and 27 students. All professionals were female and had at least five years of career-counselling experience. The student group included 15 students from General Lyceums (10 female, five male) and 12 from Vocational Lyceums (eight female, four male). All students were 17–18 years old.

Participants were recruited voluntarily between January and March 2026 through a random-selection procedure involving 10 secondary schools. During each school visit, the Career Guidance application was briefly demonstrated, after which students were given approximately

one class hour to use it independently, complete the assessment, and explore their results and recommended educational options. The same procedure was followed across schools before completion of the evaluation questionnaire.

Table 2. Characteristics of the evaluation sample (N = 30)

Participant group	n	Female	Male	Age / experience
Career-guidance professionals	3	3	0	>5 years counselling
Students – GEL	15	10	5	17–18 years
Students – EPAL	12	8	4	17–18 years
All students	27	18	9	17–18 years
Total sample	30	21	9	—

Note. GEL = General Lyceum; EPAL = Vocational Lyceum.

B. Evaluation instrument and analysis

A custom closed-response questionnaire comprising 10 items was administered to the participants (N = 30). Items were rated on a five-point scale (1 = not at all, 2 = indifferent, 3 = a little, 4 = very much, 5 = extremely) and assessed overall experience, visibility of available actions, ease of use, comprehensibility of interaction and error messages, usefulness of information, visual appeal, perceived reliability of results, coverage of users' preferences, and willingness to recommend the application.

Responses were analysed for the whole cohort without subgroup separation. Descriptive statistics included item means, standard deviations, and the proportion of favourable responses (ratings of 4 or 5), together with the overall participant-level mean. Inferential analysis included a one-sample Wilcoxon signed-rank test comparing participants' overall ratings with the scale midpoint of 3 and a Friedman test examining differences across the ten questionnaire items. Where appropriate, post-hoc Wilcoxon signed-rank tests with Holm correction were used for pairwise comparisons. Cronbach's alpha was calculated as an indicator of the questionnaire's internal consistency.

Results

A. Implemented functionality

The prototype implemented the planned account, authentication, questionnaire, scoring, result-storage, and programme-retrieval functions. It separated programme data by school pathway, retained prior results for later review, displayed profile descriptions, and provided institution and website information for recommended programmes. Normal and alternative flows covered incomplete forms, invalid credentials, insufficient questionnaire selections, absent stored results, password reset, email verification, logout, and permanent account deletion. The screenshots in Figures 2–4 show that the application progressed from a compact mobile interface to a Firebase-backed retrieval process without requiring the student to understand the underlying data structure.

The architecture supported centralized modification of programme data in Firebase. This was an important design decision because admission catalogues can change and static records embedded in an application rapidly become obsolete. The stored user branch also enabled results to be reopened after later login. Nevertheless, the prototype's programme data were compiled for the 2021 Greek context; the present paper does not verify that programme names, links, admission fields, or eligibility pathways remain current.

B. Descriptive results

Overall, participants evaluated the application very positively. Across the ten questionnaire items, mean ratings ranged from 4.53 to 4.93 on the five-point scale, with an overall mean of approximately 4.80. The highest ratings concerned the visibility of available actions (E2; $M = 4.93$, $SD = 0.25$) and the visual appeal of the application (E7; $M = 4.93$, $SD = 0.25$). Ease of use (E3; $M = 4.87$, $SD = 0.35$) and comprehensibility of error messages (E6; $M = 4.87$, $SD = 0.35$) were also rated particularly highly. The comparatively lowest score was recorded for the perceived reliability of the generated results (E8; $M = 4.53$, $SD = 0.57$), although this value still indicates a strongly positive evaluation. Ratings for the coverage of participants' preferences by the questionnaire activities (E9; $M = 4.70$, $SD = 0.47$) and the pleasantness of the overall experience (E1; $M = 4.73$, $SD = 0.45$) were similarly favourable. Overall, the findings suggest high levels of perceived usability, clarity, usefulness, and acceptance of the application.

Table 3. Descriptive evaluation results for the full cohort ($N = 30$)

Item	Evaluation dimension	Mean	SD	95% CI
E1	Pleasantness of experience	4.73	0.45	4.56-4.90
E2	Visibility of available actions	4.93	0.25	4.84-5.00
E3	Ease of use	4.87	0.35	4.74-5.00
E4	Comprehensibility of interaction	4.80	0.41	4.65-4.95
E5	Usefulness of information	4.77	0.43	4.61-4.93
E6	Comprehensibility of error messages	4.87	0.35	4.74-5.00
E7	Visual appeal	4.93	0.25	4.84-5.00
E8	Perceived reliability of results	4.53	0.57	4.32-4.74
E9	Coverage of user preferences	4.70	0.47	4.52-4.88
E10	Willingness to recommend	4.83	0.38	4.69-4.97
Overall	Overall evaluation	4.80	-	approx. 4.72-4.88

C. Statistical interpretation

Participants' mean ratings across the ten items were significantly higher than the neutral midpoint of the scale (3), as indicated by a one-sample Wilcoxon signed-rank test ($W = 465.0$, $p < .001$). This suggests that the favourable evaluation was unlikely to reflect neutral or indifferent responses. A Friedman test indicated that ratings differed significantly across the ten evaluation items, $\chi^2(9) = 31.39$, $p < .001$. The corresponding Kendall's W was 0.12, indicating that, although statistically significant, differences among items were relatively small.

Because perceived reliability of the generated results (E8) received the lowest mean rating, post-hoc comparisons examined whether E8 differed from the remaining items. After Holm correction, E8 was rated significantly lower than visibility of available actions (E2), ease of use (E3), comprehensibility of error messages (E6), and visual appeal (E7) (adjusted $p < .05$). Differences between E8 and E1, E4, E5, E9, and E10 did not remain statistically significant after correction. Thus, reliability represented the comparatively weakest aspect of the evaluation, while still receiving a high absolute rating ($M = 4.53$).

Finally, the ten-item questionnaire showed good internal consistency (Cronbach's $\alpha = .81$). This result suggests that the items captured a reasonably coherent overall evaluation of the application, although the coefficient should be interpreted cautiously because the questionnaire addressed several related but distinct dimensions, including usability, appearance, usefulness, and perceived reliability.

Table 4. Inferential statistics for the full cohort ($N = 30$)

Analysis	Statistic	Result
Overall ratings vs. midpoint (3)	Wilcoxon $W = 465.0$	$p < .001$
Differences among the 10 items	Friedman $\chi^2(9) = 31.39$	$p < .001$
Effect size for item differences	Kendall's $W = .12$	Small
Internal consistency	Cronbach's $\alpha = .81$	Good
Holm-adjusted post-hoc tests for E8	Lower than E2, E3, E6, E7	adjusted $p < .05$

D. Participant feedback

Participants were particularly satisfied with the appearance, navigation, and ease of use of the application. The possibility of completing the career-guidance activity on a mobile device was viewed positively because it made the process quick, accessible, and easy to complete within the school setting. Participants also valued being able to review their profile and suggested educational options immediately after completing the activity. At the same time, some participants expressed reservations about whether automated recommendations should be treated as definitive and preferred the involvement of a qualified career-guidance professional in interpreting the results. Overall, the feedback supports the use of the application as a complementary tool for career exploration rather than as a replacement for professional counselling. This interpretation is consistent with the comparatively greater caution expressed regarding perceived reliability.

Discussion

A. Principal findings

The prototype demonstrates a feasible technical pathway from a student-friendly activity checklist to RIASEC-based feedback and locally filtered programme information. Its strongest design feature is not the novelty of using a personality typology, but the integration of self-

exploration with school-pathway-specific programme data and the ability to update that data centrally. This integration responds to a practical weakness of generic international career applications, whose educational information may not correspond to national pathways.

The statistical analysis findings suggest that the interface and interaction model were acceptable to the tested users. Near-ceiling results for action visibility, visual appeal, ease of use, and understandable error messages indicate that the prototype's basic interaction design was successful in the testing context. The exact Wilcoxon and Friedman analyses add statistical description to this pattern, but they do not convert a small, non-probability formative study into population-level evidence. Thus, although positive, the findings remain preliminary usability evidence.

The comparatively lower rating for perceived reliability is the most informative finding. It shows that a polished interface does not automatically confer trust in the recommendation logic. This distinction is desirable: users recognized that vocational guidance is consequential and that a custom checklist created in a software-development project does not carry the same evidential status as a validated assessment interpreted by a trained professional.

B. Design implications

The evaluation suggests several directions that could further strengthen the application. Future versions could present a more complete RIASEC profile rather than only the highest-scoring category. A simple bar or radar chart could display the relative strength of the different dimensions and help students understand that vocational interests may span several areas rather than belong to a single fixed category.

The recommendations could also become more transparent by showing how selected activities relate to the resulting profile and suggested study programmes. Providing access to alternatives associated with other highly rated RIASEC categories may encourage broader exploration. Additional contextual information, such as entry requirements, programme location, career prospects, and labour-market information, could further support students when considering their options.

The application may be particularly useful as part of a broader guidance process rather than as a replacement for professional counselling. For example, results generated by the application could provide a starting point for discussion with a career-guidance professional and encourage students to reflect further on their interests and educational choices [3, 18]. Keeping programme information regularly updated would also improve the usefulness of the recommendations. Further development could additionally consider accessibility, privacy, and security aspects, particularly if the application is made available to a larger student population. This role is

emphasized only where relevant, avoiding repeated statements that the application is not intended to replace professional counselling.

C. Relation to prior research

The study is consistent with research showing that mobile access can support flexible, self-directed engagement when an application offers a clear purpose and coherent task sequence [11, 12]. Its account and feedback functions also resemble earlier educational mobile systems that supported user-regulated self-assessment and reflective learning (Removed for blind review). More directly, the design aligns with the emerging use of mobile applications for career counselling, including the STUDIA intervention reported by Masi et al. [6].

Career Guidance has not yet reached the evidential level of interventions that measured career readiness, adaptability, or decision-making self-efficacy using validated instruments and pre-post or controlled designs [4, 5, 6, 13]. Its contribution is an implemented, locally contextualized design and an initial acceptability test. The preference for professional confirmation also corresponds with evidence that students may be open to online services while continuing to value in-person individual support [7]. A subsequent study should compare the application plus counsellor support with usual guidance or information-only conditions, assess immediate and follow-up outcomes, and examine whether recommendations support exploration without narrowing students' options prematurely.

Limitations

The findings should be interpreted in light of several limitations. The sample was relatively small, particularly the number of career-guidance professionals, and the evaluation relied on a custom 10-item questionnaire administered after a single use of the application. The study therefore focused mainly on participants' perceptions of usability, usefulness, design, and reliability rather than on longer-term effects on career knowledge or decision making.

Conclusion and Future Work

Career Guidance is a functional Android prototype that combines a Holland RIASEC-based activity exercise with pathway-specific programme recommendations for Greek upper-secondary students. The evaluation involved 30 participants, including 27 students and three experienced career-guidance professionals. Overall, the application received very positive ratings for visibility of actions, visual design, ease of use, usefulness, and general user experience. Perceived reliability received the comparatively lowest rating, although it remained positive, suggesting that some users would still value professional interpretation of the results.

The findings support further development of the application as a complementary career-guidance tool rather than as a stand-alone diagnostic instrument. Future improvements could

include presenting a multi-dimensional RIASEC profile, separating interests from abilities, making the logic behind recommendations more transparent, validating the activity-to-RIASEC mappings, and regularly updating programme and labour-market information. Further evaluation with validated measures, qualitative feedback from students and counsellors, usability metrics, and follow-up assessment could provide stronger evidence of its educational value and support its integration into blended school career-guidance practice.

Declarations

Ethics approval and consent to participate: The research reported in this article is exempt from institutional review. According to institutional guidelines, research projects that collect data via anonymous questionnaires with participant informed consent, and process the data in compliance with GDPR, do not require approval from the ethics committee of the Hellenic Open University. The authors verified that all statistical data were obtained from anonymized questionnaires solely assessing participant opinions regarding the instructional intervention, and that all participants or their guardians, where applicable, provided written informed consent before participation.

Consent for publication

Not applicable. The manuscript does not contain identifiable personal data, images, or other material requiring consent for publication.

Availability of data and materials

All data generated or analyzed during this study are included in this published article.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

Both authors contributed to the conception and design of the study, implementation of the intervention, data collection, analysis and interpretation of the findings, and preparation and critical revision of the manuscript. Both authors read and approved the final manuscript.

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Authors



Styliani Kavoura completed an MSc in Information Systems at the Hellenic Open University, Greece. Her academic background has provided her with knowledge and competencies in information systems, digital technologies, and their applications in contemporary organizational environments. Her interests include the effective use of information technology, digital transformation, and information management. (email: std138183@ac.eap.gr).



Fotis Lazarinis  is an educator and researcher in Computer Science and Educational Technology. He is a part-time lecturer and researcher at the Hellenic Open University, with academic and research interests in e-learning, digital education, teacher training, STEAM, and innovative uses of technology in education. He holds a PhD in Educational Technology and has published extensively in international journals, conferences, and academic volumes, while also participating in numerous European educational and research projects. (email: fotis.lazarinis@ac.eap.gr).