An Roinn Oideachais
Department of Education

Subject Inspection: Computer Science and Digital Subjects Report

REPORT FOR SCHOOL RESPONSE

Ainm na scoile/School name	Presentation College
Seoladh na scoile/School address	Putland Road Bray Co. Wicklow
Uimhir rolla/Roll number	61800D
Dáta na cigireachta/ Date of evaluation	21-04-2023
Dáta eisiúna na tuairisce/Date of issue of report	15-06-2023

Subject inspection

Dates of inspection	18-04-2023 and 21-04-2023
Inspection activities undertaken • Review of relevant documents • Discussion with principal and key staff • Interaction with students, including focus groups	• Observation of teaching and learning during three lessons • Examination of students' work • Feedback to principal and relevant staff

School context

Presentation College Bray is a boys, post-primary school with a current enrolment of 648 students under the trusteeship of the Presentation Brothers Schools Trust. The school offers the following programmes: Junior Cycle (JC), an optional Transition Year (TY) and the established Leaving Certificate.

Summary of main findings and recommendations:

Findings

- The overall quality of teaching, learning and assessment ranged from good to very good with a few instances of exemplary practices noted.
- Computer Science students were very engaged, motivated to learn and were competent, confident, reflective and creative designers of computing artefacts.
- The classroom atmosphere was positive and affirming providing a productive and supportive learning environment.
- Very good formative assessment practices enabled students to understand the intended learning and the criteria necessary for successful completion of tasks which improved students' contributions to lessons.
- Whole-school support and subject provision for Computer Science subject is commendable.
- Preparation and planning for lessons was of a high quality and the programmes of work for digital subjects were detailed and comprehensive.

Recommendations

- To support the growing subject interest, senior management should consider increasing digital subject provision for all JC students, to enhance digital skills and build further teaching capacity within the school.
- There was scope to improve student ownership of learning by encouraging students to work independently when problem solving.

Detailed findings and recommendations

1. Teaching, learning and assessment

- The overall quality of teaching, learning and assessment ranged from good to very good with a few instances of exemplary practices noted.
- Computer Science students were highly engaged and motivated to learn. It was evident that students were proficient programmers using computational thinking methods to recognise, deconstruct and solve problems. In all lessons students were competent, confident, reflective and creative developers of computing technology.
- A very positive atmosphere for learning, fostering mutual respect was evident in all lessons. Students were observed providing good answers, posing their own questions and seeking teachers' support in a relaxed manner.
- Teacher instruction was clear, concise and of a high quality. This gave students a very good understanding of the required tasks and facilitated their learning intuitively step-by-step.
- High expectations for student achievement were set out in lessons. These included a good balance of individual and group tasks which productively engaged learners through varied, purposeful, well-paced and interesting activities. Teachers prepared an extensive range of lesson resources which were also available on the schools' digital platform. This blended learning approach meant all class materials were available online for students to use for further study and research.
- In one highly effective design lesson, where students were developing solutions, whole class, collaborative learning was organic, with design discussions arising between peers and also between the different groups. This commendable practice fostered a very purposeful, productive design environment that promoted student creativity and prepared students well for working in teams in their future workplace.
- In the majority of lessons, an appropriate balance between teacher and student input to problem solving was observed. In a few lessons, the teacher modelled the solution in advance of the students and consequently, this disengaged them from active problem solving. This practice should be avoided during lessons as students need autonomy to attempt solutions for themselves.
- During discussions, students consistently articulated a good understanding of their own computing artefacts. To illustrate this understanding and in line with best coding practice, teachers and students should increase the frequency of comments in their code. Comments are a form of note-making for students by describing the code in clear, concise language. In addition, comments enhance the re-use and maintenance of the code for revision and peer assessment purposes.
- At the beginning of lessons, teachers communicated the planned content to students, using oral and written descriptions on slides. This gave learners a clear understanding of what the lesson was about, it kept them engaged and allowed them to reflect as their learning progressed. In all lessons, very good practice was observed where students were given the opportunity to explicitly reflect on what they knew and what they had learned. This commendable practice promoted students' responsibility for their learning.
- Computer Science students at the focus group spoke very highly about the practical aspect of the subject together with the opportunities it provided them to communicate in teams while developing solutions. The main strengths of the subject, in their opinion was the creativity and time-management skills they were building. They also recognised that these acquired skills were very valuable, transferable and necessary for their future career paths.
- High quality formative assessment practices such as using questioning and giving oral feedback to students on their work was evident. In all lessons, teachers circulated the room, continuously tracking students' progress while also offering one-to-one encouragement and challenge where needed.
- Teachers provided valuable written feedback to learners on assignments and examinations using the online learning platform. These individual comments were encouraging and supportive; affirming areas of success together with suggestions for

improvement. The possibility to extend this good practice with audio format comments would offer further scope to enhance feedback to students on a regular basis.

- The design of summative assessments in Computer Science was highly effective and teachers have considered the format of state examinations assessment in their approach. In-house examinations combined various modes of assessment including coding tests, written tests, software assignments, continuous assessments and presentations.

2. Subject provision and whole school support

- Subject provision for the recently added Computer Science subject is commendable and there is a strong uptake of the optional subject at senior cycle.
- A high quality, bespoke Computer Studies subject is offered to all first years, providing a very good foundation to students in digital skills and coding. Furthermore, the TY Computer Science taster module informs fifth-year subject choices. To support the growing subject interest, it is recommended that senior management consider options to extend digital subjects to all JC students. This would enhance digital skills, enlighten senior cycle subject choice and build further teacher capacity in the specialist area.
- Whole-school support for Computer Science is very good. Timetable provision is appropriate and is in line with specification recommendations. The school provides informed choice from the subject teacher and career guidance counsellors, where prospective students and their guardians receive presentations on the nature of the subject and its relevance for future career prospects.
- The dedicated specialist room was timetabled for all digital subjects and was well resourced for all types of student activities.
- Management supports and facilitates teachers to access ongoing continuing professional development (CPD) opportunities. Commendably, an extensive range of CPD opportunities have been availed of by the subject teacher. This includes the acquisition of third level qualifications and participation in subject in-service training provided by the Professional Development Service for Teachers to support the implementation of the new specification.
- Students benefited from extra-curricular activities that promoted subject interest. The school worked closely with third-level and industry partners and students had opportunities to participate in workshops outside the school that gave real-world relevance to their learning.

3. Planning and preparation

- The quality of lesson planning and preparation was very good overall. Teaching resources were well prepared and were used effectively to complement learning.
- The yearly subject plans for Computer Science and other digital subjects were detailed and comprehensive. The Computer Science plan was very well-thought-out and it combined inter-related learning outcomes from the specification mapped to an appropriate timescale with associated teaching approaches. All work programmes were living documents and teachers' reflective practice demonstrated a professional approach to continually improve teaching and learning of the subjects.
- The subject department used a digital platform to share the learning outcomes achieved to date together with many relevant digital media resources. This effective practice assisted further study and helped students to take responsibility for their own learning.

The draft findings and recommendations arising out of this evaluation were discussed with the principal and subject teachers at the conclusion of the evaluation.

The Inspectorate's Quality Continuum

Inspectors describe the quality of provision in the school using the Inspectorate's quality continuum which is shown below. The quality continuum provides examples of the language used by inspectors when evaluating and describing the quality of the school's provision of each area.

Level	Description	Example of descriptive terms
Very Good	*Very good* applies where the quality of the areas evaluated is of a very high standard. The very few areas for improvement that exist do not significantly impact on the overall quality of provision. For some schools in this category the quality of what is evaluated is *outstanding* and provides an example for other schools of exceptionally high standards of provision.	Very good; of a very high quality; very effective practice; highly commendable; very successful; few areas for improvement; notable; of a very high standard. Excellent; outstanding; exceptionally high standard, with very significant strengths; exemplary
Good	*Good* applies where the strengths in the areas evaluated clearly outweigh the areas in need of improvement. The areas requiring improvement impact on the quality of pupils' learning. The school needs to build on its strengths and take action to address the areas identified as requiring improvement in order to achieve a *very good* standard.	Good; good quality; valuable; effective practice; competent; useful; commendable; good standard; some areas for improvement
Satisfactory	*Satisfactory* applies where the quality of provision is adequate. The strengths in what is being evaluated just outweigh the shortcomings. While the shortcomings do not have a significant negative impact they constrain the quality of the learning experiences and should be addressed in order to achieve a better standard.	Satisfactory; adequate; appropriate provision although some possibilities for improvement exist; acceptable level of quality; improvement needed in some areas
Fair	*Fair* applies where, although there are some strengths in the areas evaluated, deficiencies or shortcomings that outweigh those strengths also exist. The school will have to address certain deficiencies without delay in order to ensure that provision is satisfactory or better.	Fair; evident weaknesses that are impacting on pupils' learning; less than satisfactory; experiencing difficulty; must improve in specified areas; action required to improve
Weak	*Weak* applies where there are serious deficiencies in the areas evaluated. Immediate and coordinated whole-school action is required to address the areas of concern. In some cases, the intervention of other agencies may be required to support improvements.	Weak; unsatisfactory; insufficient; ineffective; poor; requiring significant change, development or improvement; experiencing significant difficulties;

What is a subject inspection?

Subject Inspections report on the quality of work in individual curriculum areas within a school. They affirm good practice and make recommendations, where appropriate, to aid the further development of the subject in the school.

How to read this report

During this inspection, the inspector evaluated learning and teaching in Computer Science and Digital Subjects under the following headings:

1. Teaching, learning and assessment
2. Subject provision and whole-school support
3. Planning and preparation

Inspectors describe the quality of each of these areas using the Inspectorate's quality continuum which is shown on the final page of this report. The quality continuum provides examples of the language used by inspectors when evaluating and describing the quality of the school's provision in each area.

Actions of the school to safeguard children and prevent and tackle bullying

<table>
<tr><td colspan="2">During the inspection visit, the following checks in relation to the school's child protection and anti-bullying procedures were conducted:</td></tr>
<tr><td>Child Protection</td><td>Anti-bullying</td></tr>
<tr><td>1. The name of the DLP and the Child Safeguarding Statement are prominently displayed near the main entrance to the school.
2. The Child Safeguarding Statement has been ratified by the board and includes an annual review and a risk assessment.
3. All teachers visited reported that they have read the Child Safeguarding Statement and that they are aware of their responsibilities as mandated persons.</td><td>1. The school has developed an anti-bullying policy that meets the requirements of the Anti-Bullying Procedures for Primary and Post-Primary Schools (2013) and this policy is reviewed annually.
2. The board of management minutes record that the principal provides a report to the board at least once a term on the overall number of bullying cases reported (by means of the bullying recording template provided in the Procedures) since the previous report to the board.
3. The school's anti-bullying policy is published on its website and/or is readily accessible to board of management members, teachers, parents and pupils/students.</td></tr>
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The school met the requirements in relation to each of the checks above.