

## ***RSC Saturday School Scholarship:***

### ***An external report***

#### ***Summary and conclusions***

The authors of this report have been impressed by the evident impact of the work of Saturday School Ltd<sup>1</sup> in respect of Scholarships funded by RSC to support learners studying for National 5 Chemistry or Higher Chemistry.

The authors offer a series of recommendations through which the work of SSL and RSC could further enhance impact.

#### ***1. Introduction***

In November 2021, RSC awarded SSL a grant of £5000 from its Diversity and Inclusion Fund. The funding was earmarked to allow attendance of students at National 5 or Higher Chemistry day-courses offered by SSL. Students attending these courses are hereinafter referred to as RSC Scholars. A call for applications was issued in November 2021 with twenty-six applicants (seven who were studying National 5 Chemistry and nineteen studying Higher Chemistry) coming forward. An additional tranche of funding (£2880) from RSC meant that all twenty-six applicants were offered a Scholarship. As will be discussed in more detail later in this report, the decision to include all the applicants was sensible given the increase in levels of achievement in all cases.

#### ***2. Saturday School Ltd***

SSL (see <https://www.saturdayschoolglasgow.com> for more detailed information) is a tutoring school and SQA Approved Centre based in Glasgow that offers weekend tuition, revision and full online qualification courses in SQA National 5 and Higher subjects including the following:

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<sup>1</sup> Abbreviations used: SSL - Saturday School Limited; RSC - Royal Society of Chemistry; SQA - Scottish Qualifications Authority.

<b>Subject Offered</b>	<b>Qualification</b>	
	<i>National 5</i>	<i>Higher</i>
<i>Biology</i>	✓	✓
<i>Chemistry</i>	✓	✓
<i>English</i>	✓	✓
<i>Mathematics</i>	✓	✓
<i>Human Biology</i>	X	✓
<i>Physics</i>	✓	✓
<i>Spanish</i>	✓	✓

In a 'typical' year SSL supports some two hundred young people with their studies in one or more of their subjects. Prior to the RSC Scholarship being in place, SSL did not have access to working / predicted<sup>2</sup> grades from schools /colleges and so it was difficult to provide an assessment of improvements in student grades over the period of intervention. However, most parents have chosen to share the improvements when results are published. The parents of many new students do share the working grades based on prelim scores at the point of joining SSL.

The fact that for the 2022 cohort information about working grades was made available by schools / colleges represents a major improvement to the statistical data available.

### **3. RSC Scholars**

In this report we will consider, separately, the impact of interventions from SSL on those studying National 5 Chemistry and those studying Higher Chemistry.

#### *National 5 RSC Scholars*

Seven RSC Scholars studying National 5 Chemistry were enrolled at the start of the Scholarship programme and all completed the programme. The following table gives relevant information about individual scholars. This information was collected by SSL as part of the application and registration processes. Scholars were assigned to a Scottish Index of Multiple Deprivation (SIMD) Decile (1 – being most deprived; 10 being least deprived) based on their home postcode; most (five from seven) National 5 RSC Scholars were from deciles 6 and above. All National 5 RSC Scholars were female. Working grades were provided by teaching staff of the RSC Scholars' school / College.

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<sup>2</sup> Hereinafter referred to as working grades

<b>Scholar Number</b>	<b>Decile</b>	<b>Gender</b>	<b>Ethnic background</b>	<b>Working grade (Jan 2022)</b>	<b>Final grade (Aug 2022)</b>	<b>Change in grade</b>
1	4	F	White Scottish	A	A	0
2	9	F	White Scottish	C	A	+2
3	9	F	White	A	A	0
4	2	F	White	A	A	0
5	6	F	White	C	B	+1
6	8	F	Nigerian	A	B	-1
7	8	F	White	C	B	+1

In only one case (Scholar 6), was a Scholar's final National 5 grade lower than the working grade provided to SSL in January 2022; the evaluation team note that in this individual's case English is her second language. There are some very positive signs from the National 5 cohort insofar as three Scholars improved on their working grades and three Scholars consolidated their working grades (in all three latter cases grades of A were obtained).

It is the judgement of the authors of this report that the RSC Scholarship programme has been a resounding success for Scholars following courses in National 5 Chemistry.

*This provides valuable opportunities for students to receive academic support outside school. [National 5 Scholar]*

*It gives students more confidence that they can achieve what they want / need with a bit more help without having to pay so much like other tutors require. [National 5 Scholar]*

### *Higher RSC Scholars*

Nineteen RSC Scholars studying Higher Chemistry were enrolled at the start of the Scholarship programme and all completed the programme. The following table gives relevant information about individual scholars. Scholars were assigned to the Scottish Index of Multiple Deprivation (SIMD) Decile (1 – being most deprived; 10 being least deprived) based on their home postcode; most (eleven from nineteen) Higher RSC Scholars were from deciles 6 and above. The Higher cohort comprised thirteen female and six male Scholars. Working grades were provided by teaching staff of the RSC Scholars' school / College.

<b>Scholar Number</b>	<b>Decile</b>	<b>Gender</b>	<b>Ethnic background</b>	<b>Working grade (Jan 2022)</b>	<b>Final grade (Aug 2022)</b>	<b>Change in grade</b>
8	1	M	Black Scottish	C	A	+2
9	1	M	Pakistani	C	A	+2
10	8	F	Asian	F	A	+4
11	9	F	Black British	C	A	+2
12	1	F	Black African	A	A	0
13	10	F	Persian	C	A	+2
14	7	M	White Scottish	D	B	+2
15	8	F	Black Scottish	C	B	+1
16	10	M	Scottish	B	B	0
17	1	F	Asian	C	B	+1
18	9	F	White	D	B	+2
19	9	F	White	D	B	+2
20	1	M	Ghanaian	C	B	+1
21	9	F	Scottish Pakistani	C	C	0
22	3	F	White Scottish	C	C	0
23	9	F	White Scottish	C	C	0
24	3	M	White Scottish	F	D	+1
25	6	F	White Scottish	F	D	+1
26	1	F	White	D	F	-1

In only one case (Scholar 26), was a Scholar's final Higher grade lower than the working grade provided to SSL in January 2022; 3 Scholars did not achieve a C grade or higher. Thirteen of the nineteen Scholars improved on their working grades (including one Scholar [SC] who went from an F to and A) and five Scholars consolidated their working grades.

Given that this is the first year in which this cohort of students will have sat National examinations, SSL and the staff involved should be proud of the results achieved by the Scholars.

*This provides valuable opportunities for students to receive academic support outside school. [Higher Scholar]*

*It gives students more confidence that they can achieve what they want / need with a bit more help without having to pay so much like other tutors require. [Higher Scholar]*

#### **4. Feedback from RSC Scholars**

On Saturday 20<sup>th</sup> August 2022, SSL organised a 'celebration event' to which all RSC Scholars were invited. Of the twenty-six scholars on the programme, nine were able to attend and each of those attendees was invited to complete a brief questionnaire about their experiences of the RSC Scholarship programme. The questionnaire used for this study is

shown in Appendix 1. We present here the collated responses; responses to questions 1 and 2 are not shown since they contain personal information which could allow tracking, responses from question 4 are contained within tables on pages 3 and 4 of this report.

#### 4.1 Questionnaire responses:

Q3 Which qualification in chemistry did you study at Saturday School Ltd?

National 5	4	Higher	5
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Q5 Has attendance at SSL encouraged you to:

	Highly likely	Quite likely	Not sure	Quite unlikely	Very unlikely
Continue your studies in chemistry	7	1			
Consider a career in a chemical-related field / area	3	3	3		
Think about study at university (not limited to chemistry)	8				1
Recommend SSL study to you friends and family	8	1			

Q6 This question relates to the quality of the tuition. Were your tutors:

	Very	Quite	Neither	Not	Not at all
Supportive	9				
Approachable	9				
Knowledgeable about their subject	9				
Willing to support you outside of tuition on Saturdays	6	3			

Q7 Are there other areas and / or levels of the curriculum SSL might offer?

New subject(s):
Chemistry (Advanced Higher x 3); Biology (Advanced Higher x 1); Business (Higher x 1); Italian (National 5 x 1; Higher x 1; Advanced Higher x 1)

Q8 Do you think that RSC should continue to support SSL? (please tick one box only)

Yes	9	Not sure	0	No	0
Please give a reason for your answer:					
<ul style="list-style-type: none"> <li>- Yes, I believe if RSC did not support SSL I would not have been able to have the opportunity to better advance my understanding and knowledge in chemistry.</li> <li>- This provides valuable opportunities for students to receive academic support outside school.</li> <li>- It gives students more confidence that they can achieve what they want / need with a bit more help without having to pay so much like other tutors require.</li> <li>- As it has helped boost grades and given people an opportunity for additional support.</li> <li>- It gives people the support they need that normally they are not able to get.</li> <li>- Because it gets people to think about chemistry outside of their schools where they may not enjoy chemistry and into a nice, focussed place with teachers and people who are passionate about their subject.</li> <li>- It's very helpful and makes the people attending comfortable and happy while learning.</li> <li>- It really helped me understand things I was unsure of better and helped me go from a C in my prelim to and A in my final exam.</li> </ul>					

- *It allows pupils from all round Glasgow to be able to access high-quality tutoring in order to help boost confidence & grades in their chosen subject.*

#### **Additional comments provided by the Scholars**

- *Being at SSL for Higher Chemistry really helped me in achieving the grade I did in the exam. It allowed me to improve and get a different approach from my teacher at school. My tutor was really helpful and always made sure to focus on the strengths & weaknesses of the class to help out in the best way possible.*
- *The teacher was really friendly and approachable and really helped me to fully understand the chemistry course and I don't think I could have achieved the grade I did without her.*
- *Thank you to all the staff for making me feel comfortable and encouraging me to go ahead Higher Chemistry. They have helped me feel confident in my knowledge of Chemistry.*
- *I am grateful for the support the Scholarship provided me and a big thank you to the teachers for their hard work. Their ability to teach us the same stuff in a separate way really helped soak in the knowledge. Attending here has helped to significantly improve my grades in Higher Chemistry. My tutor was very supportive and helpful and gave us new ways to remember things and explained things in multiple ways which improved my understanding.*
- *I really liked the way xxxx taught us as he made sure to keep me interested and even though I would be tired from coming on a Saturday I would look forward to coming on Saturday. I think if this Saturday School for Chemistry School continues to run many people will really gain a lot from xxxx as he keeps his students interacted and keeps the mood lively.*
- *Thank you for all the tutorial classes outside school, they are really wonderful and useful in my academic studies in chemistry. I am very grateful to have the chance to learn!*
- *I enjoyed my experience at RSCSSSP and am very grateful for the opportunity. It helped my confidence in chemistry which then helped me perform better throughout the year and in my exam.*
- *I really enjoyed my experience at the Saturday School. I found the environment for studies focussed, relaxed and really pleasant. I can't fault it – they put a lot of thought in it. Though what really made the experience so very helpful and informative in a fun and engaging way was the teacher / tutor I had. They made that whole experience for me, they brought an energy and passion for the subject (chemistry) that I had never seen before. She made the subject so engaging and vibrant and made me view the subject in a whole new way. She made me really think about the possibilities out there that I wouldn't have considered before I went.*

#### **4.2 Discussion of Questionnaire responses**

The collated responses from the nine returned questionnaires provide evidence of very positive support from Scholars in relation to their experiences with the RSC Scholarship programme. Seven of the respondents stated that they are highly likely to continue studying chemistry with chemistry careers and university study also featuring in Scholars' plans. SSL should be really pleased with the endorsement which Scholars offer in terms of the quality of the tuition offered and the positive impact it has had on their interest in the subject; it is evident that tutors have provided a rich experience for the Scholars.

## **5. Summary**

For both National 5 and Higher RSC Scholars, the interventions provided by SSL have had a significant impact on the grades achieved. At a time when students have faced national examinations, probably for the first time in their lives, the support of RSC through this initiative has been pivotal.

## **6. Recommendations**

1. SSL should approach RSC, as a matter of urgency with a view to establishing whether funding similar interventions during the 2022/23 academic year is possible.
2. SSL should consider whether expanding its portfolio to include support for Advanced Higher students is merited.
3. SSL should, with the support of RSC and through its links with schools and colleges, encourage greater uptake of Scholarships for National 5 chemistry.
4. SSL and RSC should share the results of this year's Scholarship programme with appropriate personnel in Scottish Government and other national agencies.
5. RSC should, through appropriate dissemination strategies (e.g., via The Learned Societies' Group on Scottish STEM Education of the Royal Society of Edinburgh), encourage other Learned Societies (e.g., the Institute of Physics and the Royal Society of Biology) to consider funding similar schemes for other subject areas.
6. SSL should consider whether serving a wider geographic area would be possible.
7. Both SSL and RSC should consider whether wider publication of the results are merited.

## **Acknowledgements**

The authors (Paul Beaumont and Kath Crawford [[pkpartners.org](http://pkpartners.org)]) wish to thank Graeme Rough (Director, SSL) for many useful discussions about the role and ethos of SSL.

## **Appendix 1 Questionnaire completed by RSC Scholars after National Results Day**



### **Royal Society of Chemistry Saturday School Scholarship**

#### **Background**

PK Partners (PKP), an independent education consultancy, has been commissioned by Saturday School Ltd (SSL) to evaluate the impact of the Royal Society of Chemistry Saturday School Scholarship Programme (RSCSSSP). You are invited to complete the following questionnaire about your experiences of RSCSSSP. Before taking part, it is important for you to understand why the various questions are being asked and what your participation will involve. You do not have to complete the questionnaire but if you do agree to take part your responses will allow both the Royal Society of Chemistry (RSC) and SSL to improve their educational programmes.

The information which you provide will be used as part of a report which PKP will submit in September 2022 to both RSC and SSL. Your names will not be included in the report which we submit. PKP will keep all the information collected secure and once the study is completed, PKP will destroy all personal information related to your responses.

If you are willing to take part, please complete the questionnaire below and give your responses to Graeme Rough who will then send them on to us at PKP for processing and analysis.

In total there are eight questions and space for additional comments which you may wish to make.

Thank you for your participation.

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[For more information about PK Partners please visit <https://pkpartners.org>]





**PK PARTNERS**

ADVICE & GUIDANCE  
FOR STEM EDUCATIONAL PROGRAMMES

**Royal Society of Chemistry Saturday School Scholarship**

**Questionnaire**

Q1 Please provide your name.

Q2 Which secondary school did you attend?

Q3 Which qualification in chemistry did you study at Saturday School Ltd?  
(please tick the appropriate box)

National 5	<input type="checkbox"/>	Higher	<input type="checkbox"/>
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Q4 For your chemistry qualification can you tell us:

• Your school / teacher predicted grade (if known)	_____
• The grade you achieved	_____

Q5 Has attendance at SSL encouraged you to: (please tick the appropriate box)

	Highly likely	Quite likely	Not sure	Quite unlikely	Very unlikely
Continue your studies in chemistry					
Consider a career in a chemical-related field / area					
Think about study at university (not limited to chemistry)					
Recommend SSL study to you friends and family					

Q6 This question relates to the quality of the tuition. Were your tutors: (please tick the appropriate box)

	Very	Quite	Neither	Not	Not at all
Supportive					
Approachable					
Knowledgeable about their subject					
Willing to support you outside of tuition on Saturdays					

Currently SSL offers a range of courses.

<ul style="list-style-type: none"><li>• <i>Biology (National 5)</i></li><li>• <i>Chemistry (National 5)</i></li><li>• <i>English (National 5)</i></li> <li>• <i>Maths (National 5)</i></li><li>• <i>Physics (National 5)</i></li><li>• <i>Spanish (National 5)</i></li></ul>	<ul style="list-style-type: none"><li>• <i>Biology (Higher)</i></li><li>• <i>Chemistry (Higher)</i></li><li>• <i>English (Higher)</i></li><li>• <i>Human Biology (Higher)</i></li><li>• <i>Maths (Higher)</i></li><li>• <i>Physics (Higher)</i></li><li>• <i>Spanish (Higher)</i></li></ul>
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Q7 Are there other areas and / or levels of the curriculum SSL might offer?  
(please name them in the space below):

<p><i>New subject(s)</i></p>  <p><i>Curriculum Level (e.g. National 5, Higher, Advanced Higher)</i></p>
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Q8 Do you think that RSC should continue to support SSL? (please tick one box only)

Yes	<input type="checkbox"/>	Not sure	<input type="checkbox"/>	No	<input type="checkbox"/>
<p><i>Please give a reason for your answer:</i></p>					

*Please use the space below to provide any other comments about your experiences at RSCSSSP:*

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