



Maths Battles and Maths Circles

Registered Charity Number: 1171037

Annual Report and Accounts for the period to 30th April 2023

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Please note: permission has been granted for We Solve Problems to use all included images.

Forward by the Chair of the Trustees

Welcome to our sixth formal Annual Report.

2022-23 was the year in which we have returned back after the pandemic -- to classrooms, face-to-face teaching and social interactions between students that defined our way of teaching maths. Getting the UCL circle back on its feet was no small feat, but we were encouraged by tremendous interest in what we had to offer, and have bounced back strongly in the Fall term with a new location in King's College.

This is in no small part due to efforts of our new General Manager, Ignat Fialkovskiy. Ignat joined the team at a difficult time and has managed to not only put our operations on even keel but also to enable a new growth chapter in our story. As we look forward to 2024, we see a strong pipeline of new locations and exciting events, driving wider reach for our activities.

I would also like to thank my fellow trustees for their continued enthusiasm during this challenging period, and sustained belief in our core mission of showing the beauty of maths to the broad audience of UK schoolchildren.



Amir Aliev

Chair of the Trustees

Objectives & Activities

The charity was founded by three PhD mathematicians in order bring the benefits of advanced mathematical thinking to mathematically curious pupils in school years 7-11 (ages 12-16). WSP achieves this by encouraging creative mathematical thinking and helping to develop pupil's skills in communicating mathematical ideas and working collaboratively. These skills are gained through weekly Maths Circles and then honed once a term in a Maths Battle.

We currently run Circles at King's College London (KCL), University College London (UCL), Keble College (University of Oxford), Bath, Cardiff and Warwick Universities as an after-school club. We do not make any charges to the participants of Maths Circles. Our tutors are mainly Maths undergraduate and post-graduate students or professional mathematicians in their own right.

The charity has been set up for the public benefit in terms of encouraging and helping children to understand mathematics and further their educational needs. The trustees have had regard to the Charity Commission's guidance on public benefit.

Our Bases

During the period under report, we held weekly meetings on Saturdays during school term times in rooms provided by KCL, UCL, QMUL, Keble College and Cardiff University. These events gather pupils from the local schools.

Maths Circles

Our Maths Circles encourage the two lifelong, and more importantly transferable, skills of problem solving and collaborative working through mathematical topics such as elementary logic, probability, induction, and pigeonhole principle. Maths Circles are the training sessions, teaching pupils how to articulate and dissect mathematical concepts. A concept is introduced, and discussions held over how it could be solved. Pupils then try to use that learning to attempt similar problems, encouraging transferable skills.

Maths Battles

Maths Battles are the 'debating' competitions between two opposing teams. The teams are given a set of problems to solve; each team then presents their solutions for the scrutiny of the opposing team. The opposing team has the right to challenge their workings. A team wins by correctly solving more problems as well as successfully presenting their solutions.

Database Presentation

We have finished building the website at problems.org.uk, where an extensive database of mathematical problems with solutions are given. The website is currently open to the public, and being tested by our own team which prepares the problem sheets for our Maths Circles.

Foundation COMPOS

In collaboration with the Physics Department of the University of Oxford we started providing online training in physics and mathematics to overseas pupils and those of private schools.

Achievements & Performance

Events

Since January 2022 the Maths Circles and Maths Battles came back to be face to face and were held at the premises of UCL till the end of the 2022 Spring term.

In September 2022 we ran the London Verbal Maths Challenge (about 100 participants) as a screening event to fill in a newly opened Circle at KCL and invite more pupils into the Circle at UCL.

2022 was finished with the Inter-School Maths Battle at KCL (about 80 participants), where teams from our Circles and other London schools took part (8 teams in total).

In January 2023 we ran another edition of the London Verbal Maths Challenge to select the pupils for a newly opened Circle at QMUL and double the number of pupils at KCL.

In March 2023 we also started Circles in Keble College (University of Oxford) and at Cardiff University.

Our Maths Circles and Battles have been well attended over the last year, with about 120 pupils in total regularly present at the Circles.

Our plans beyond today

More Locations

We plan to keep expanding our Circles both in number of pupils attending, and in number of locations. The Maths Circle at University of Bath will be introduced later in Spring term of 2023, and other locations are being discussed. The launch of a second session at existing locations (KCL, UCL) is also planned, aimed at doubling the number of attending kids without creating groups too big.

Inter-School Maths Battle

Aiming to create additional motivation for the students of the Maths Circles, we run intra-circle Maths Battles twice a term. In addition to that we will keep organising Inter-School Maths Battle twice a year where the best representatives of our Circles are invited to, along with teams from other schools and institutions.

These events include a public lecture by well-known authors and mathematics popularisers such as Alex Bellos, Junaid Mubeen, and others.

London Verbal Maths Challenge

The concept of London Verbal Maths Challenge, introduced in previous years, is to be polished and improved. There will be two events per school year: autumn and winter editions.

During the event, the pupils are given a number of advanced maths questions from different mathematical areas and at different levels of difficulty. Once a question is completed, they will verbally present their answer to one of WSP's adjudicators, all of whom will be Masters or PhD students, or professional mathematicians in their own right.

Office Management

Our General Manager during the period, Ignat, has been home working for us overseeing the charity's administrative and marketing tasks.

Financial Review

The charity received gross donations of £77,744 and tutoring fees of £6,990 for the period ended 30th April 2023. With a total of £64,579 resources expended this created a surplus of £20,155 for the year. Added to prior year surpluses, the total accumulated funds carried forward as at 30th April 2023 were £27,097.

None of the charity's funds are restricted but they must be used to further the charity's objectives. To date WSP has been funded mainly through the philanthropic activity of Amir Aliev, one of our Trustees.

Without his vision and unswerving support, we could not have achieved what we have. We realise that we need additional and alternative revenue streams, and our General Manager will be charged with investigating this. It is our intention to continue offering most of our services free of charge.

Risk Management

The major risks to which the charity is exposed have been identified and considered. They have been reviewed and systems established including a formal risk register which has been subjected to review.

The most significant risk relates to the care of children whilst in our charge. To mitigate this all those involved with the children are subjected to DBS checks and appropriate details are kept in relation to children such as emergency contact numbers.

Reserves policy

The charity intends to build reserves equivalent to at least three months operating expenditure during the next year.

Going Concern

The trustees consider the charity to be a going concern for the foreseeable future, and for a period of at least twelve months following the date of this report.

Structure, Governance & Management

We Solve Problems (WSP) was registered as a Charitable Incorporated Organisation under registration number 1171037 on the 9th January 2017. The charity is governed by its Constitution. The trustees named on page 10 have served throughout the year and since the year end. Appointment of trustees is governed by the Constitution of the charity, whereby the existing trustees have the power to appoint further trustees as required. Appointed trustees must be appointed for a term of three years upon resolution.

In selecting individuals for appointment, the trustees must have regard to the skills, knowledge and experience needed for the effective administration of the charity. If any further trustees were appointed, they would be introduced to their new role and given copies of the Constitution and a guide to the policies and procedures adopted by the charity. A number of publications from the Charity Commission would also be provided to ensure that new trustees would be aware of the scope of their responsibilities under the Charities Act.

Funding

To date WSP has been funded through the philanthropic activity of Amir Aliev and Vasily Filippov, both being our Trustees. Without their vision and unswerving support, we could not have achieved what we have. Additional funds were raised by tutoring overseas students through the Foundation COMPOS initiative.

We realise that we need additional and alternative revenue streams. We started the Fundraising Campaign in 2023, and hopefully new sponsors will support the charity in the future.

According to our arrangements with all the Universities we work with, we are provided rooms at no cost to ourselves. This, together with our General Manager working from home, has meant that we do not need to invest in office buildings at this point.

Reference & Administrative Details

Our legal framework is as follows:

Full name of charity: We Solve Problems CIO

Registration Charity Number: 1171037

The correspondence address is: Delmon House
36-38 Church Road
Burgess Hill
West Sussex
RH15 9AE

The bankers are: Unity Trust Bank
9 Brindley Place
Birmingham
B1 2HB

The accountants are: Sigma Partners
Delmon House
36-38 Church Road
Burgess Hill
West Sussex
RH15 9AE

Our Trustees are: Amir Aliev
Elena Boguslavskaya
Vasily Filippov

Statement of Trustees responsibilities in respect of the Trustee annual report and the financial statements.

Under charity law, the Trustees are responsible for preparing the annual report and the financial statements for each financial year which show a true and fair view of the financial performance and position of the charity.

In preparing these financial statements, generally accepted accounting practice entails that the trustee:

- select suitable accounting policies and then apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- state whether the recommendations of the Statement of Recommended Practice have been followed, subject to any material departures disclosed and explained in the financial statements;
- state whether the financial statements comply with the trust deed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue its activities.

The trustees are responsible for keeping proper accounting records, sufficient to disclose at any time, with reasonable accuracy, the financial position of the charity at that time, and to enable the trustees to ensure that, where any statements of accounts are prepared by the trustees under section 132(1) of the Charities Act 2011, those statements of accounts comply with the requirements of regulations under that provision. The trustees have general responsibility for taking such steps as are reasonably open to the trustees to safeguard the assets of the charity and to prevent and detect fraud and other irregularities.

Signed on behalf of the Trustees:  Amir Aliev (Chair)

Independent Examiners' Report to the Trustees of

We Solve Problems

I report on the accounts of the Charity for the period ended 30th April 2023 which are set out on pages 13 to 17.

Respective Responsibilities of the Trustees and Examiner

The trustees are responsible for the preparation of the accounts. The trustees consider that an audit is not required for this year under section 144 of the Charities Act 2011 (the 2011 Act) and that an independent examination is needed.

It is my responsibility to:

- examine the accounts under section 145 of the 2011 Act;
- to follow the procedures laid down in the General Directions given by the Charity Commission; and
- to state whether particular matters have come to my attention.

Basis of Independent Examiners' Report

My examination was carried out in accordance with the General Directions given by the Charity Commission. An examination includes a review of the accounting records kept by the Charity and a comparison of the accounts presented with those records. It also includes consideration of any unusual items or disclosures in the accounts, and the seeking of explanations from you as trustees concerning any such matters. The procedures undertaken do not provide all the evidence that would be required in an audit and, consequently, no opinion is given as to whether the accounts present a 'true and fair view' and the report is limited to those matters set out in the statement below.

Independent Examiners' Statement

In connection with my examination, no matter has come to my attention:

- (1) which gives me reasonable cause to believe that, in any material respect, the requirements:
 - to keep accounting records in accordance with s.130 of the Charities Act 2011; and
 - to prepare accounts which accord with the accounting records and to comply with the accounting requirements of the Charities Act have not been met; or
- (2) to which, in my opinion, attention should be drawn in order to enable a proper understanding of the accounts to be reached.



Name of principal: S P Lea

Name of firm: Sigma Partners

Relevant professional qualification or body: ACCA

Address: Delmon House
36 - 38 Church Road
Burgess Hill
West Sussex
RH15 9AE

Date:



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STATEMENT OF FINANCIAL ACTIVITIES

For the year ended 30 April 2023

Including summary income and expenditure account

	Note	Unrestricted Funds	Endowment Funds	Total 2023	2022
		£	£	£	£
Incoming Resources					
Donations		77,744	0	77,744	3,917
Tutoring Fees Receivable		6,990	0	6,990	0
Government Grants		0	0	0	7,292
HMRC Interest Receivable		0	0	0	51
Total Incoming Resources		84,734	0	84,734	11,260
Resources Expended					
Charitable Expenditure	3	32,285	0	32,285	395
Management and Administration	4	32,294	0	32,294	13,218
Total Resources Expended		64,579	0	64,579	13,613
Net movement in funds for the year		20,155	0	20,155	-2,353
Total Funds brought forward		6,942	0	6,942	9,295
Total Funds carried forward		27,097	0	27,097	6,942

There were no recognised gains or losses for 2023 or 2022 other than those included in the Statement of Financial Activities.

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BALANCE SHEET

As at 30 April 2023

	Note	Unrestricted Funds £	Endowment Funds £	Total 2023 £	2022 £
Fixed Assets					
Website	6	7,082	0	7,082	0
Computer Equipment	7	14	0	14	504
		<u>7,096</u>	<u>0</u>	<u>7,096</u>	<u>504</u>
Current Assets					
Stock of Prizes		175	0	175	355
Tax Refund due		16,750	0	16,750	1,250
Other Debtors		0	0	0	0
Cash at Bank - current account		4,512	0	4,512	6,102
		<u>21,437</u>	<u>0</u>	<u>21,437</u>	<u>7,707</u>
Current Liabilities					
Creditors and Accruals	8	1,436	0	1,436	1,269
Net Current Assets		20,001	0	20,001	6,438
Total Net Assets		<u>27,097</u>	<u>0</u>	<u>27,097</u>	<u>6,942</u>
Funds	9	<u>27,097</u>	<u>0</u>	<u>27,097</u>	<u>6,942</u>

Approved by the Trustees on 26/01/2024 and signed on their behalf.



 A Aliev - Trustee

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Notes to the Accounts

For the year ended 30 April 2023

1 Public Benefit Entity

We Solve Problems is constituted as a Charitable Incorporated Organisation and registered in the United Kingdom. It is a Public Benefit Entity.

2 Accounting Policies

2.1 Basis of preparation of accounts

The financial statements are prepared under the historical cost convention and in accordance with the Charitable SORP Financial Reporting Standard 102.

2.2 Going Concern

The trustees consider that the charity will be a going concern for a period of at least twelve months following the date of the audit report.

2.3 Income

Donations are accounted for as received by the charity.

2.4 Resources Expended

Expenditure is included on an accruals basis.

Management and administration comprises costs for the running of the charity itself as an organisation.

2.5 Fund Accounting

Details of the nature and purpose of each fund is set out in Note 9.

2.6 Fixed Assets

Fixed assets are held at historical cost less amortisation, depreciation and impairment provisions.

Amortisation is charged on the Website over a period of 5 years.

Depreciation is charged on Computer Equipment at a rate of 33% on cost.

3 Charitable Expenditure

Charitable expenditure is comprised of:

	2023 £	2022 £
Contractors providing tuition	27,962	0
Events, prizes & competition costs	3,169	395
Books & educational materials	1,154	0
	<u>32,285</u>	<u>395</u>

4 Management and Administration

Management and administration expenses are comprised of:

	2023 £	2022 £
Administrative Salaries	19,231	9,903
Employer's NI	0	0
Pension Costs	437	172
Travel	1,807	0
Print, Post & Stationery	1,222	68
Computer Costs	111	0
Advertising, Marketing & Promotional Materials	1,886	0
Sundries	250	0
Insurance	96	0
Accountancy	2,019	2,488
Legal & Professional Fees	2,858	0
Bank Charges	118	72
HMRC Interest	0	25
Amortisation - Website	1,769	0
Depreciation - Computer Equipment	490	490
	<u>32,294</u>	<u>13,218</u>

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Notes to the Accounts

For the year ended 30 April 2023

5 Staff Costs and Trustees Remuneration

No remuneration was paid to the trustees in the year, nor were any trustees' expenses reimbursed.

All duties were performed by the trustees themselves, with one member of administrative staff.
No employee received remuneration in excess of £50,000.

6 Intangible Fixed Assets

	2023 £
Website	
<u>Cost</u>	
As at 01.05.2022	0
Additions	8,851
As at 30.04.2023	<u>8,851</u>
<u>Amortisation</u>	
As at 01.05.2022	0
Charge for Year	1,769
As at 30.04.2023	<u>1,769</u>
<u>NBV</u>	
As at 30.04.2023	<u>7,082</u>
As at 30.04.2022	<u>0</u>

7 Fixed Assets

	2023 £
Computer Equipment	
<u>Cost</u>	
As at 01.05.2022	1,484
Additions	0
As at 30.04.2023	<u>1,484</u>
<u>Depreciation</u>	
As at 01.05.2022	980
Charge for Year	490
As at 30.04.2023	<u>1,470</u>
<u>NBV</u>	
As at 30.04.2023	<u>14</u>
As at 30.04.2022	<u>504</u>

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Notes to the Accounts

For the year ended 30 April 2023

8 Creditors and Accruals

	2023 £	2022 £
Accruals	1,440	1,320
Expenses due	678	0
PAYE due	-791	-51
Pensions due	109	0
	<u>1,436</u>	<u>1,269</u>

9 Funds

Unrestricted funds comprise those funds which the trustees are free to use in accordance with the charitable objectives.

10 Related party transactions

Donations of £52,000 have been received in the year from A Aliev, a trustee of the charity (2022 - £6,650).
Donations of £10,000 have been received in the year from V Filippov, a trustee of the charity (2022 - £nil).