



Maths Battles and Maths Circles

Registered Charity Number: 1171037

Annual Report and Accounts for the period to 30th
April 2022

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Forward by the Chair of the Trustees

Welcome to our fifth formal Annual Report.

2021/2022 was a difficult year for us, as for many other in the charitable sector and beyond. Forced by pandemic and lockdowns to switch to online format, we have discovered that the format did not work well with our methods of teaching and our target audience. Staring at a Zoom screen, devoid of interactions with their friends, students get increasingly isolated and lose interest. Without that drive, it's hard to engage with challenging topics that we lay out in front of them. Online lectures and other one-to-many formats work well; but we specifically designed our activities as many-to-many, and found the hard way this does not translate to online.

Faced with this headwinds we decided with heavy heart to pause our regular activities during the Autumn 2021 term, as we felt we cannot provide the same quality of education as before. We took this time to ponder on our goals, and strategic direction of the Charity. From the Spring 2022 term we have started again in our old UCL location, in the old in-person format, and felt validated by the continued interest from students and parents around London.

During this period of inactivity we had parted ways with Divya, our long-term General Manager. We are grateful to her for all the work over the years, as well as all the help she provided after the official end of her duties to make sure the transition went smoothly and orderly. We wish her all the best in the next chapter of her career.

On behalf of all the trustees, we are grateful to all the parents who have reached out to us and encouraged us to continue the activities – the wonderful stories about the impact we have made put wind in our sails as we continue on our journey.

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) and University College London (UCL) as an after-school club. We do not make any charges to our participants. Our tutors are mainly Maths PhD 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

We hold weekly meetings on Saturdays during school term times in rooms provided by KCL and UCL. These events gather kids from all around London. We also start Thursday's sessions at Queen Mary University of London to cover especially the Eastern London.

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 try this then 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

After translating an extensive database of around 30,000 appropriate mathematical questions, we are now building a relevant web-site at maths.problem.org.uk.

Achievements & Performance

Events

During the second half of 2021 due to the COVID pandemic it was decided that our events were held online. Each week we had a specific mathematical theme and questions were posed around that theme. We had around 50 registrations confirmed for that school year. However, the online version of the Circles was not delivering, and students were not showing the expected levels of engagement. Thus, at the first opportunity in January 2022 the Maths Circles and Maths Battles came back to be face to face and were held at the premises of UCL. There were 40 kids on average attending the sessions.

Our plans beyond today

More Locations

We plan to expand our circles both in number of kids attending, and in number of locations. The Maths Circle at King's College London will be introduced in the Autumn term of 2022, and at Queen Mary University of London at some later stage.

London Verbal Maths Challenge

The concept introduced in the previous year is to be scaled up: London Verbal Maths Challenge. There will be two events per school year: September and February.

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.

The event is used as a selection process for the Maths Circles, but also as a stand alone individual competition.

Teacher Training

We are still negotiating with UCL over providing maths training to their teachers, both those in a PGCE or other teacher training route and for existing teachers as continuing professional development.

For this we will work in much the same way as we do with our Maths Circles and Battles. We want teachers to rediscover the fun of their subject, the reason they went into it in the first place. Our Maths Circles are designed to be an extra-curricular activity to extend and enrich pupils who are gifted in maths and as such does not match the existing curriculum. Instead, we will show teachers how they can really work the brains of specific pupils, encouraging them to think outside the (curriculum) box.

Office Management

Our General Manager during the first half of the period, Divya, has been home working for us overseeing the charity's administrative and marketing tasks, but had to leave the charity due to its relative inactivity.

Financial Review

The charity received net donations of £3,917 and other income of £7,343 for the period ended 30th April 2022. With a total of £13,613 resources expended this left a deficit of £2,353 which was covered by previous years' retained surpluses.

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 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 stream and our General Manager will be charged with investigating this. It is our intention to continue offering our services free of charge.

Due to the Coronavirus pandemic and our classes being fully remote for half of the period under report, we enjoyed a significant saving as well as lending our teaching authority. This, together with our General Manager working from home, has meant that we did not need to invest in office buildings, although we realise that it is something that may be needed as we grow and should be allowed for.

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 on children such as emergency contact numbers.

Reserves policy

The charity intends to build a reserves policy 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.

Exemptions from disclosure

None

Funds held as a custodian trustee on behalf of others

None

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, one of our Trustees.

We realise that we need additional and alternative revenue streams, in order to continue offering our services free of charge. Our new Marketing Manager will be charged with investigating this.

Our liaison with UCL's 'Widening Participation' scheme has meant that we are given room bookings within UCL (usually Chadwick building) at no cost to ourselves. This is a prime central London address, as well as a highly respected university, meaning that we enjoy a significant saving as well as lending our teaching authority. As mentioned in the Financial Review, we may need to allow for the cost of office buildings in the future as we grow.

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: 167 Notte Street

Plymouth

PL1 2HF

The bankers are: Unity Trust Bank

9 Brindley Place

Birmingham, B1 2HB

The accountants are: Sigma Partners

Rear First Floor Offices

Delmon House

36-38 Church Road

Burgess Hill

West Sussex

RH15 9AE

Our Trustees are: Amir Aliev

Elena Boguslavskaya

Vassili Philipov

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 state of affairs of the charity and of the excess of income over expenditure for that period.

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

- 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)

Date: 24/04/2023

WE SOLVE PROBLEMS

Independent Examiners' Report to the Trustees of We Solve Problems

I report on the accounts of the Charity for the period ended 30 April 2022 which are set out on pages 14 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: 30/01/23

WE SOLVE PROBLEMS

STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 30 April 2022

Including summary income and expenditure account.

	Note	Unrestricted Funds	Endowment Funds	Total 2022	2021
		£	£	£	
Incoming Resources					
Donations	3	3,917	0	3,917	35,749
Government Grants		7,292	0	7,292	13,576
HMRC Interest Receivable		51	0	51	58
Total Incoming Resources		11,260	0	11,260	49,383
Resources Expended					
Charitable expenditure	4	395	0	395	19,666
Management and administration	5	13,218	0	13,218	34,785
Total resources expended		13,613	0	13,613	54,451
Net movement in funds for the year		-2,353	0	-2,353	-5,068
Total Funds brought forward		9,295	0	9,295	14,363
Total Funds carried forward		6,942	0	6,942	9,295

There were no recognised gains or losses for 2022 or 2021 other than those included in the Statement of Financial Activities.

WE SOLVE PROBLEMS

BALANCE SHEET

As at 30 April 2022

	Note	Unrestricted Funds £	Endowment Funds	Total 2022 £	2021
Fixed Assets					
Computer Equipment	7	504	0	504	994
Current Assets					
Stock of Prizes		355	0	355	750
Tax Refund due		1,250		1,250	14,396
Other Debtors		0		0	1,667
Cash at bank - current account		6,102	0	6,102	2,653
		<u>7,707</u>	<u>0</u>	<u>7,707</u>	<u>19,466</u>
Current liabilities					
Creditors and accruals	8	1,269	0	1,269	11,165
Net current assets		6,438	0	6,438	8,301
Total net assets		<u><u>6,942</u></u>	<u><u>0</u></u>	<u><u>6,942</u></u>	<u><u>9,295</u></u>
Funds	9	<u><u>6,942</u></u>	<u><u>0</u></u>	<u><u>6,942</u></u>	<u><u>9,295</u></u>

Approved by the Trustees on 27th January 2023 and signed on their behalf.



A Aliev - Trustee

WE SOLVE PROBLEMS

Notes to the accounts

for the year ended 30 April 2022

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 depreciation and impairment provisions.

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

3 Donations

The donations are shown net, after adjusting for Gift Aid. The trustees have taken the decision, not to claim Gift Aid relating to the initial year of the charity.

4 Charitable Expenditure

Charitable expenditure is comprised of:

	2022 £	2021 £
Contractors providing tuition	0	8,163
Events, prizes & competition costs	395	11,503
	<u>395</u>	<u>19,666</u>

5 Management and Administration

Management and administration expenses are comprised of:

	2022 £	2021 £
Administrative salaries	9,903	31,256
Pension costs	172	651
Print, Post & Stationery	68	96
Sundries	-	54
Insurance	-	110
Accountancy	2,488	2,036
Bank Charges	72	72
HMRC Interest	25	20
Depreciation - Computer Equipment	490	490
	<u>13,218</u>	<u>34,785</u>

6 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.

7 Fixed Assets

Computer Equipment	2022 £
<u>Cost</u>	
As at 01.05.2021	1,484
Additions	-
As at 30.04.2022	<u>1,484</u>
<u>Depreciation</u>	
As at 01.05.2021	490
Charge for Year	490
As at 30.04.2022	<u>980</u>
<u>NBV</u>	
As at 30.04.2022	<u>504</u>
As at 30.04.2021	<u>994</u>

8 Creditors and accruals

	2022 £	2021 £
Accruals	1,320	1,324
Due to D Dhinakaran	-	7,422
PAYE due	-51	1,483
Pensions due	-	936
	<u>1,269</u>	<u>11,165</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 £6,650 have been received in the year from A Aliev, a trustee of charity (2021 - £30,000).