



Maths Battles and Maths Circles

Registered Charity Number: 1171037

Annual Report and Accounts for the period to 30th
April 2021

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Foreword by the Chair of the Trustees

Welcome to our fourth formal Annual Report, which I trust is both helpful and informative.

I would specifically like to thank both our employee and all those who have worked with us in such a committed and enthusiastic way to support the development of our service so that it can continue to meet the needs of the children we work with.

I would also like to thank my fellow trustees for their support during the year, and thank the external organisations with whom we have worked so successfully.



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 7-10 (ages 12-15). WSP achieves this by encouraging creative mathematical thinking and helping to develop pupil's skills in communicating mathematical ideas and working collaboratively. Working mainly through University College London's (UCL), these skills are gained through weekly Maths Circles and then honed once a term in a Maths Battle.

We currently operate through University College London's (UCL) 'Widening Participation' scheme, as well as trialling our teaching in the Royal Grammar School, High Wycombe, as an after-school club. We do not make any charges to our participants. Our tutors are all 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 UCL. We also provide the Royal Grammar School in High Wycombe with an extra-curricular maths club run along the same lines. Initially we focussed on the Euston area of London, and the one school in High Wycombe, however this year children signed up for our events are showing as addresses throughout London and its surrounding areas.

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 Translation

Through contacts in Russia, we have been given access to an extensive database of around 30,000 appropriate mathematical questions¹. We have been translating these questions in order to bring them into the UK classroom.

¹ www.problems.ru

Achievements & Performance

Events

Our Maths Circles and Battles have been well attended over the last year, with up to 40 pupils at every session. Due to the COVID pandemic the trustees collectively decided that Online Maths Circles would be held via Zoom from October 2020. Each week takes on a specific mathematical theme and questions are posed around that theme.

We have around 50 registrations confirmed for this school year, and foresee another successful year.

Our plans beyond today:

London Verbal Maths Challenge

We are about to introduce a new concept: our Online London Verbal Maths Challenge.

Aimed at those in school years 6-9 (ages 11-14), we are for the first time encouraging older primary school pupils who have an aptitude for maths to join us. Here pupils will be 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 adjudicator will question them on how they arrived at their answer. Points will be awarded at the end of the presentation and they can then either return to work on the original question, in order to improve their mark, or start on a new question. Adjudicators will guide them so they can eventually deliver a perfect solution. This is an individual challenge, where the work and the presentation are both done independently.

Our inaugural meeting was held on September with nearly 70 pupils from a variety of schools across London and the home counties attending.

Teacher Training

We are 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. This is on standby until we can hold face to face sessions and we hope this will take effect from January 2021 onwards.

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 current General Manager and continues to split her role and oversee the charity's admin and marketing.

Translated Database

We are currently working on a fully searchable database to hold the questions being translated from Russian into English. This will enable us –and, more importantly, UK teachers –to more easily interrogate the stored questions in order to find ones appropriate to their needs.

New Schools

We intend to start taking our message out beyond the walls of UCL once its is safe to do so. We would like to see more schools adopting our extra-curricular maths, and eventually have WSP host an inter-school league.

Financial Review

The charity received gross donations of £35,749 for the period ended 30th April 2021. With a total of £54,451 resources expended this left a surplus of £9,295 to be carried forward for future trading periods.

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 ongoing Coronavirus pandemic and our classes now being fully remote this means that we enjoy a significant saving as well as lending our teaching authority. This, together with our General Manager working from home, has meant that we do not need to invest in office buildings at this point, 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

At present we do not hold reserves as the level of funding to date has not allowed for us to build a reserve. Given our expenses are minimal, Dr Aliev has agreed to cover any expenses that would normally fall under this. We do intend to build reserves, and this is something that is in our business plan for the current year.

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.

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 12 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.

Reference & Administrative Details

This is our first Annual Report. Our legal framework is as follows:

Full name of charity: We Solve Problems CIO

Registration Charity Number: 1171037

The correspondence address is: Flat 98, 10 Clipstone Street, London, W1W 6BF

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

The independent examiners are: Sigma Partners
Gloucester House
66a Church Walk
Burgess Hill, RH15 9AS

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 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 Trustee is 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 trustee to ensure that, where any statements of accounts are prepared by the Trustee under section 132(1) of the Charities Act 2011, those statements of accounts comply with the requirements of regulations under that provision. The Trustee has general responsibility for taking such steps as are reasonably open to the Trustee to safeguard the assets of the charity and to prevent and detect fraud and other irregularities.

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

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 2021 which are set out on pages 15 to 18.

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: P S Sheppard

Name of firm: Sigma Partners

Relevant professional qualification or body: ACCA

Address: Gloucester House
Church Walk
Burgess Hill
West Sussex
RH15 9AS

Date: 26.1.2022

WE SOLVE PROBLEMS

STATEMENT OF FINANCIAL ACTIVITIES

for the year ended 30 April 2021

Including summary income and expenditure account.

| | | Unrestricted Funds | Endowment Funds | Total 2021 | 2020 |
|---|------|-----------------------|--------------------|---------------------|----------------------|
| | Note | £ | £ | £ | |
| Incoming Resources | | | | | |
| Donations | | 35,749 | 0 | 35,749 | 39,202 |
| Government Grants | | 13,576 | 0 | 13,576 | 1,073 |
| HMRC Interest Receivable | | 58 | 0 | 58 | |
| Total Incoming Resources | | <u>49,383</u> | <u>0</u> | <u>49,383</u> | <u>40,275</u> |
| Resources Expended | | | | | |
| Charitable expenditure | 3 | 19,666 | 0 | 19,666 | 21,712 |
| Management and administration | 4 | 34,785 | 0 | 34,785 | 33,501 |
| Total resources expended | | <u>54,451</u> | <u>0</u> | <u>54,451</u> | <u>55,213</u> |
| Net movement in funds for the year | | <u>-5,068</u> | <u>0</u> | <u>-5,068</u> | <u>-14,938</u> |
| Total Funds brought forward | | 14,363 | 0 | 14,363 | 29,301 |
| Total Funds carried forward | | <u><u>9,295</u></u> | <u><u>0</u></u> | <u><u>9,295</u></u> | <u><u>14,363</u></u> |

There were no recognised gains or losses for 2021 or 2020 other than those included in the Statement of Financial Activities.

WE SOLVE PROBLEMS

BALANCE SHEET

As at 30 April 2021

| | Note | Unrestricted Funds £ | Endowment Funds | Total 2021 £ | 2020 |
|--------------------------------|------|----------------------------|--------------------|----------------------|----------------------|
| Fixed Assets | | | | | |
| Computer Equipment | 6 | 994 | 0 | 994 | 0 |
| Current Assets | | | | | |
| Stock of Prizes | | 750 | 0 | 750 | 750 |
| Tax Refund due | | 14,396 | | 14,396 | 7,708 |
| Other Debtors | | 1,667 | | 1,667 | 0 |
| Cash at bank - current account | | 2,653 | 0 | 2,653 | 11,208 |
| | | <u>19,466</u> | <u>0</u> | <u>19,466</u> | <u>19,666</u> |
| Current liabilities | | | | | |
| Creditors and accruals | 7 | 11,165 | 0 | 11,165 | 5,303 |
| Net current assets | | 8,301 | 0 | 8,301 | 14,363 |
| Total net assets | | <u>9,295</u> | <u>0</u> | <u>9,295</u> | <u>14,363</u> |
| Funds | 8 | <u>9,295</u> | <u>0</u> | <u>9,295</u> | <u>14,363</u> |

Approved by the Trustees on 24 January 2022 and signed on their behalf.



A Aliev - Trustee

WE SOLVE PROBLEMS

Notes to the accounts

for the year ended 30 April 2021

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 8.

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 Charitable Expenditure

Charitable expenditure is comprised of:

| | 2021 £ | 2020 £ |
|------------------------------------|---------------|---------------|
| Contractors providing tuition | 8,163 | 9,912 |
| Events, prizes & competition costs | 11,503 | 11,799 |
| | <u>19,666</u> | <u>21,711</u> |

4 Management and Administration

Management and administration expenses are comprised of:

| | 2021 £ | 2020 £ |
|-----------------------------------|---------------|---------------|
| Administrative salaries | 31,256 | 24,506 |
| Pension costs | 651 | 551 |
| Print, Post & Stationery | 96 | 720 |
| Subscriptions | - | 2,568 |
| Sundries | 54 | - |
| Insurance | 110 | - |
| Accountancy | 2,036 | 1,655 |
| Legal & professional (DBS checks) | - | 3,415 |
| Bank Charges | 72 | 87 |
| HMRC Interest | 20 | - |
| Depreciation - Computer Equipment | 490 | - |
| | <u>34,785</u> | <u>33,501</u> |